

*A publication of the Directorate of Military Programs*

# Public Works *Digest*

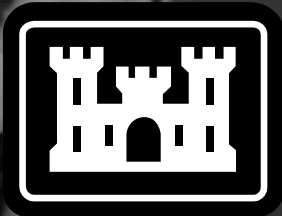
Volume XIV, No. 4

July/August 2002

*In This Issue...*

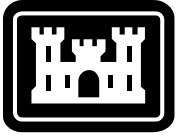
## **Privatization and Outsourcing**

*George Braun Retires  
– see p.12*



**US Army Corps  
of Engineers®**

July/August 2002  
Vol XIV, No.4



## US Army Corps of Engineers®

**Public Works Digest** is an unofficial publication of the US Army Corps of Engineers, Directorate of Military Programs, Installation Support Division, under AR 360-81. Method of reproduction: photo-offset; press run: 3,000; estimated readership: 40,000. Editorial views and opinions expressed are not necessarily those of the Department of the Army.

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Cover photo:  
George Braun Retires (See p.12)



Printed on Recycled paper.

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## LETTER FROM THE EDITOR



*In our never-ending efforts to become more efficient, the Army is looking more and more to the competitive powers of the marketplace for assistance. As we evaluate our entire military and civilian workforce to see which functions are commercial in nature and can be opened up for competition under the A-76 process, we continue to pursue innovations in private-public partnerships. As we adopt business innovations and best practices from private industry, we allow for better asset management and increase our business efficiency.*

*The bottom line is we have to do what is best for our soldiers and the Army. To that end, we are looking for the best service at the best value. Whether it's a government contractor or a government team that can provide the best work should be secondary. Besides, the A-76 effort is carefully orchestrated by our Congress, which dictates how we should do it.*

*Basically, privatization consists of the transfer of ownership or long-term control and interest of Army facilities or properties and their operation to a non-federal entity to serve the Army's continuing needs. This new controlling entity takes on the responsibility for maintaining and improving the facility or property to meet the Army's requirements as a "customer."*

*Proposed actions that result in the divestiture of infrastructure, improvements, or other real property are major federal actions that require consideration under applicable laws. Nevertheless, we must recognize that the proper execution of privatization actions should result in overall improvements in environmental conditions too. An environmental analysis is an important element in guiding informed implementation of all privatization efforts.*

*The two major privatization efforts within the Army are utility privatization and Army Family Housing privatization. The first specifically includes privatization of electric and natural gas distribution systems as well as water and wastewater treatment systems. Army Family Housing privatization is a large operation currently referred to as RCI (Residential Communities Initiative). It emphasizes developing whole communities as well as revitalizing and maintaining adequate family housing.*

*Privatizing utility plants and systems can help your installation reallocate scarce civilian manpower and financial resources to functions critical to the Army's core mission. As the Army leads the way to meeting the DoD directive to privatize all systems by the year 2003, all installations and garrison commanders are being encouraged to take a personal interest in the success of this initiative.*

*This issue of the Public Works Digest provides two comprehensive overviews of competitive/strategic sourcing; both contain predictions of what you can expect to see in the near future. Other must-read topics in this privatization issue include FORSCOM's Expanded Utilities Modernization Program, Fort Bragg's success over a private contractor's bid for work, Fort Hood's unique Family Housing Limited Partnership, and the first joint effort between the Army and the Navy to privatize housing at the Presidio and Naval Post Graduate School as well as an introduction to the new Program Manager for Utilities Privatization at Huntsville.*

*Our cover photo is dedicated to George Braun, the Deputy Chief of the Installation Support Division at Headquarters and its earlier incarnations (Engineering and Housing Support Center; Center for Public Works, and Installation Support Center) for many years, who retired last month. Please read about his 30-year-long career in installation support and his views on the future of the public works business in the article on p. 12.*

*Until next time...*

*Alexandra K. Stakhiu*

Editor, Public Works Digest **PWD**



## Army Competitive Sourcing— recent history and future

by Jim Wakefield

During the 1980s, the Army, Navy and Air Force each completed OMB Circular A-76 studies of about 25,000 positions. The savings from those A-76 competitions averaged about 30%.

Two laws passed by the Congress brought the competitions of the 1980s to an end. One, commonly known as the "Nichols Amendment," gave installation commanders the authority to decide which activities to compete. That law expired in 1995.

The other law requires that A-76 competitions take no more than 2 years for a single-function study or 4 years for a multi-function study. While the "2-year/4-year law" has been included in the DoD Appropriations Act each year, including FY02, most in-progress DoD competitions were canceled to comply with the law when it was first passed in FY91.

### The 1980s vs. the 1990s

In 1995, the Deputy Secretary of Defense established and chaired an Outsourcing and Privatization Integrated Policy Team. This IPT, which included the services' Under Secretaries and Vice Chiefs, re-energized DoD's competitive sourcing program.

By 1997, during the Quadrennial Defense Review, all three services had committed to perform A-76 competitions exceeding the total they completed in the 1980s. The driving force for these commitments was the need for funding for force modernization.

Essentially, DoD's leaders recognized that the A-76 program had achieved significant savings in the 1980s, and they decided to use it to meet the critical force modernization requirements of the 1990s.

In 1997, the Army allocated competition targets among its Major Commands in accordance with each MACOM's commercial activities inventory. To meet their targets, some of the MACOMs decided centrally which activities to compete. The other MACOMs re-allocated their targets among their installations. Several installations

began "Whole Base Studies," and most of the rest began competitions of entire directorates.

Since FY97, the Army has initiated A-76 studies of 32,000 positions and completed A-76 studies of 11,000 positions. This includes about 95% of installation Directorates of Public Works and Directorates of Logistics and 85% of installation Directorates of Information Management and Directorates of Plans, Training & Mobilization.

The completed studies will save the Army about \$180 million per year—a savings of 36%. These savings are calculated by comparing the pre-study cost of the competed activities with the cost of the winning in-house or contract offer. Sixty-nine percent of the competitions resulted in in-house decisions (compared to 50% in the 1980s).

Details on these studies can be found on the Army Competitive Sourcing web site, [www.army.mil.acsimweb/ca/ca1.htm](http://www.army.mil.acsimweb/ca/ca1.htm).

Why greater savings in the 1990s than the 1980s (36% vs. 30%)? There's no generally accepted answer, but it may be that, in the 1990s, we competed entire directorates rather than divisions or branches. Larger competitions probably allowed more streamlining and attracted more private-sector interest.

Why more in-house decisions in the 1990s than the 1980s (69% vs. 50%)? Again, we're not sure. One possible answer: the Army and DoD began more competitions during the three years of 1997-1999 than we completed in the ten years of the 1980s. The logic here is that more simultaneous competitions means fewer interested contractors for any single competition (although this contradicts a possible reason why we are achieving greater savings).

The table at the end of this article provides information regarding competitions of public works functions.

This table compares the percent in-house decisions and percent savings for

	1980s	FY97-02	DPWs (97-02)
% In-house	50%	69%	38%
% Savings	30%	36%	41%

the Army as a whole and for the public works competitions:

### The Future

What does the future hold? That may depend largely on two factors. One is Transformation of Installation Management or TIM. In October of this year, all Army installations will come under the Assistant Chief of Installation Management in the Pentagon rather than the MACOMs. This means that MACOMs will no longer be involved in conducting installation competitions. They will also not participate in decisions on starting new ones. While this will substantially change the Army's competitive sourcing program, the impact of TIM on future competitions is also uncertain.

The other factor is pressure from OMB. While the reason DoD re-energized its competition program in the late 1990s was to achieve savings to re-program for modernization, the reason for the current administration's push is to achieve a more efficient government.

OMB has directed each federal agency to complete competitions of 5% of its Federal Activities Inventory Reform (FAIR) Act inventory during FY02 and another 10% in FY03. The President's objective is to compete 50% eventually. While these directions were mainly aimed at the non-defense agencies, which have conducted very few competitions, OMB is also urging DoD to conduct substantial additional competitions.

OSD and OMB recently reached agreement that DoD would achieve the 50% goal. This means that there will be more competitions over the next several years than the 1980s and 1990s combined. The timing and the specifics are being developed. Stay tuned. ►



## Status of DPW (DPW/DOL) Studies from FY 97 to Present (Excluding Whole Base Studies)

Completed Studies - (9,147 spaces, annual recurring savings of \$95 million—41 percent)

Contract Decisions (Contractor)	In-House Decisions
Fort Stewart DOL/DPW (Griffin Services) Fort Campbell Housing (J&J Maintenance) Fort McPherson DOL/DPW (Griffin Services) Fort Knox DOL/DPW (Armor Center Support Services) Carlisle Barracks DOL/DPW (Griffin Services) Fort Lee DOL/DPW (Johnson Controls) Fort Sill DPW (Baker Services) Fort Eustis DPW (Griffin Services) Fort Rucker DOL/DPW (IT Corp) Fort Monroe DOL/DPW (Griffin Services) Fort Bliss DOL/DPW (Cube Corp) Fort Benning DOL/DPW (IT Corp)	Fort Drum DPW Fort Riley DPW Fort Leavenworth DOL/DPW
In-Progress Studies	Studies with Tentative Decisions *
Fort Lewis DPW US Army Alaska Aberdeen Proving Ground DOL/DPW Fort Dix AG/DPW	Fort Campbell DPW (In-House) DPW Fort Bragg DPW (In-House) Fort Hood DPW (In-House) Fort Jackson DOL/DPW (In-House) US Army Hawaii DPW (In-House) Fort McCoy DOL/DPW (Griffin Services)

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Jim Wakefield is a member of the OACSIM  
Competitive Sourcing Office (DAIM-CS)).

\* Appeals/protests pending

## Curt Murdock—Huntsville's new PM for Utilities Privatization

Curt Murdock recently came on board as the new Program Manager for Utilities Privatization at the U.S. Army Engineering and Support Center in Huntsville, Alabama.

"My professional background is very diverse," explained Curt when asked about his experience. "I have served in the U.S. Air Force and worked as a civil servant for the Army and Navy. I have also worked as a private consultant supporting government contracts."

His last assignment was as Program Manager for Huntsville's Russia Chemical Demilitarization Program, managing a complex, high-dollar, cost-plus-fixed-fee design chemical demilitarization facility to be built in Russia.

"I coordinated the resolution of design, scheduling and funding issues with my Russian counterparts both here and in Russia," said Curt.

A civil engineer from the University of Alabama-Huntsville, Curt is also a recent graduate of the U.S. Army CP-18 Leadership Development Program. This is a three-year program designed to further develop the careers of Army employees demonstrating outstanding leadership potential.

In his new position as Program Manager for Utilities Privatization, Curt will be responsible for leading and coordinating life-cycle support for the Utilities Privatization Program, which includes engineering, economic analyses and contracting actions to privatize plants and systems. This important program provides installations assistance in developing scopes of work, issuing solicitations, evaluating economics of proposals and conducting source selection and evaluation boards.

With extensive experience in program management positions and lots of ideas on how installations can best privatize, Curt

can't wait to get the ball rolling.

"In my opinion," he said, "the U.S.

Military does many things better than any group of people in the world— however, operating and maintaining utilities is not one of them. The sooner government installations privatize their utilities, the better."

Curt is married and has two children. Because his wife is also an engineer at Huntsville Center, they not only coordinate travel plans but "Who is cooking dinner tonight?"

You may contact Curt at (256) 895-1325,  
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**PWD**



Curt Murdock



# The future for A-76 Commercial Activities studies and greater success with Strategic Sourcing

by Dave Johnson, Gary Schanche and Fred Reid

Since 1997, there has been a strong push for many DPWs and other elements of Army garrisons to conduct cost comparison studies of their activities that are considered commercial activities. The process for conducting the studies in the federal government was developed in the 1950s and published as OMB Circular A-76. Although there have been several attempts to update the process, the so-called "A-76 process" has been widely criticized by people in both the public and private sectors.

The underlying concept is sound: for garrison activities that are commercial in nature, we should allow a fair and open competition to determine the best source for these goods and services. Indeed, all DPWs already purchase a large amount of goods and services from the private sector. The real question is "What is the optimum mix of in-house employees and contractors that best meets the installation support needs for the Army?"

The A-76 process suffers from the following severe problems:

- (1) It is expensive for both the government unit and the private sector companies who decide to develop proposals.
- (2) It is lengthy, requiring many years to complete.
- (3) It causes severe problems with morale for the in-house government employees who feel threatened and are left wondering for years about their future jobs.
- (4) It is heavily criticized for being unfair by people from both the public and private sectors.

## GAO Panel Results

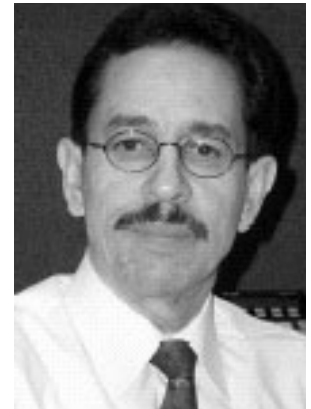
Because of the extensive criticism of the A-76 process, last year Congress mandated that GAO form a panel with members from both the public and private sector to study the method and develop recommenda-



Dave Johnson



Gary Schanche



Fred Reid

tions. The panel studied past results, held open hearings at several locations throughout the country and recorded the results in detail. One thing that permeated the hearings was that virtually everyone objected to the current A-76 process.

The 12-member panel reported its results in April 2002, concluding that the A-76 process "has been stretched beyond its original purpose, which was to determine the low-cost provider of a defined set of services." The panel also determined that the narrow focus on cost savings of the A-76 process was detrimental to the overall goal because of the rapid changes going on, including the advancement of technology.

The panel produced four recommendations. The first recommendation, unanimously approved by all 12 members, was a set of 10 principles for the future design of a new competitive process. A key part was to recognize the importance of in-house government employees and create incentives and processes that would foster government units that are high-performing, efficient and effective.

The other recommendations, approved by two-thirds of the members, included an end to the existing A-76 process and more specific details of a proposed new process based mostly on the use of Federal Acquisition Regulations.

The report has been sent to Congress and is available at [www.gao.gov](http://www.gao.gov) under "Commercial Activities Panel." It is expected to lead to dramatic changes in the competitive approach for commercial activities.

## Impact of September 11th Attacks

While the GAO panel was conducting its study and devising ➤



Enhanced security at access control points to Army bases will impact a contractor's ability to provide services, but the impact over the long term is unclear.



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recommendations for changes, the terrorist attacks of September 11th occurred. One of the first impacts of the attacks was a dramatic change in access control at Army bases. This caused an immediate impact upon the ability of contractors to obtain access and conduct work at the base, raising many questions about the long-term impact on using contractors to conduct work under the new level of access control and increased emphasis on security.

Although there has been much discussion on the issue, so far there has been no final determination of the impact. It does seem clear that the change in level of access control will force a change in the way contractors function and must be factored into the future process and cost comparison calculations.

### Human Capital

An amazing paradox in government policy has been the continued, relentless push of A-76 Commercial Activities studies while simultaneously articles and presentations proclaim that the federal government is confronting a "human capital crises." The importance of "people" as a source of capital and the critical ingredient for success in the private sector has been widely recognized and included as a critical strategic element in successful companies. Unfortunately, there has been a widespread treatment of people in government as a source of "cost" rather than as an asset or capital.

In particular, this direct relation has been used to guide cost reduction efforts by targeting a specific number of positions to be eliminated or subjected to competition.

In the past two years, there have been increasing concerns about the demographics of federal government staffs and the upcoming exodus of key people with critical knowledge and skills. The A-76 process has added to the potential exodus with its demoralizing impact and short-term focus on cost reductions.



*Crane, the DoD pilot test site for Strategic sourcing, continued to expand its initiative and enjoy greater success.*

### Success of Strategic Sourcing Pilot Test

In recognition of the shortcomings of the A-76 process, DoD initiated a dynamic program in FY00 called "Strategic Sourcing." It embodies the key principles of the strategic sourcing innovation with a proven track record that was established by the private sector.

DoD pilot-tested the concepts for this program at the Crane Naval Surface Weapons Center in Crane, Indiana. The first results from the pilot test showed that the strategic sourcing approach would yield more savings than typical A-76 studies, produce substantial improvements in performance and avoid the negative impacts upon morale of the workforce.

After achieving the initial success with reinvention in just a few areas of installation support at Crane, the Center turned the reinvention effort into the centerpiece of a "transformation" of all of Crane, not just installation support functions. Crane continues to make progress and is now capturing benefits beyond the original goals.

In this period of rapid changes, the most important attribute of strategic sourcing is its flexibility. It allows an installation to develop a specific sourcing approach that

fits the unique needs and strategic objectives for that installation. It also enables the installation to rapidly adjust the approach to respond to external drivers. With the Army Transformation scheduled to produce changes for 20 years or more in the future, this is a critical attribute.

If the recommended new cost comparison approach is approved by Congress and implemented by DoD, it will provide another valuable tool in the strategic sourcing toolbox for Army installations and DPWs to meet the challenges of the future.

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*Dave Johnson and Gary Schanche are researchers at CERL and Fred Reid works at HQUSACE in the Installation Support Division. PWD*



# Restoring and modernizing FORSCOM's utility systems

by Paul DesRoches and Adrian Gillespie

Many of the Army's utility systems are approaching obsolescence. Years of neglect and low maintenance and repair funding have taken their toll. Utility system renovation costs are enormous, and ultimately, they have to be paid.

The Army determined that ownership of utilities distribution systems (electric, natural gas, water, and wastewater) is not mission essential. Whether or not the provision of utility service is an inherent Army responsibility, utility services must be provided if we are to continue to operate our installations and industrial plants.

Utility privatization leverages private capital for renovation and improvements to the Army's utility infrastructure. It transfers the ownership of the utility system to a private entity and relies on the new owner to bring the physical plant up to commercial standards and then provide commercial grade utility service.

Utility privatization shifts the burden of paying for the restoration and modernization of our utility infrastructure from Military Construction, Army (MCA) to Operations and Maintenance, Army (OMA) where it becomes a contractual cost in our utilities account above the cost of commodities. The Army will still pay for the restoration and modernization, it will just be done over a longer period of time, and with interest.

Furthermore, future environmental issues can drive recapitalization costs up, and the prognosis for more stringent environmental regulations is almost a certainty. The full funding of OMA utility accounts, to

include the cost of privatization, may well come at the expense of Sustainment, Restoration, and Modernization (SRM) funding which is considered by many in the Army as "discretionary."

Current schedules project FORSCOM reaching privatization decisions on five systems by the end of this fiscal year. We do not have funds to make the contract awards and are sending the projects to the Department as executable, but Subject to the Availability of Funds (SAF).

FY03 is our banner year; we intend to privatize an additional forty systems at various times during the fiscal year. The cost impact for these contract awards is difficult to predict given the limited experience to date. We are searching for ways to pay these expected bills through direct and reimbursable funding channels; failing that, we must send these projects to HQDA as SAF. We expect that the overall cost to the Army will be significant.

FORSCOM has been and continues to be a strong supporter of the Army's privatization initiative. We will continue to pursue the transfer of utility systems to the private sector as one of our top priorities. However, our concern is that once the contract to transfer the system is complete and ready to award, we may be forced to delay further action pending availability of funds.

Also, there will ultimately be some systems that do not, either immediately or ever, become privatized. How do we bring them up to commercial standards outside of the Utilities Privatization Program?

For FORSCOM, that's the Expanded Utilities Modernization Program (EUMP). FORSCOM annually sets aside about \$33M (\$3M for design and \$30M for projects) of sustainment funds for renovation and modernization of utility systems. The EUMP was designed to be an augmentation to the Utilities Privatization Program and have an adjustable end date based upon the fallout from the Utilities Privatization Program.

Originally, we expected it to have a ten-year duration. If success rates for the Utilities Privatization Program are not as expected, it could be extended for another five years.

This program had specific rules and strict prioritization guidelines. The EUMP is a holistic program that combines all forms of funding (Operations and Maintenance, Army, Environmental, and MCA) in a focused investment program. We hope that the Installation Management Activity/Transition of Installation Management will use this program as a template for the Army and make it available to all qualified utility systems.

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*Paul DesRoches is the FORSCOM Engineer Business Team Leader and Adrian Gillespie is the FORSCOM Utilities Privatization Program Manager. **PWD***

## Fort Meade RCI transfers operations to partner

After months of planning and anticipation, Fort George G. Meade took its place among the four Army Installation pilot sites that have successfully privatized their family housing through Residential Communities Initiative (RCI). The other sites include Fort Carson, Colorado, Fort Lewis, Washington, and Fort Hood, Texas.

On May 1, 2002, Fort Meade transferred 2500 family housing units as well as the operation and management portion of the housing mission to Meade-Picrnie Partners, LLC. Fort Meade will share a long-term relationship with Meade-Picrnie Partners who, as the private developer partner will finance, design, construct, manage,

operate, and maintain and repair the Fort Meade military family housing inventory for the next 50 years. In exchange for this opportunity, Meade-Picrnie will receive the military member's Basic Allowance for Housing as rent.

The objectives of the RCI program are to improve quality of life for soldiers ➤



# Fort Bragg workers to keep jobs—private contractor bid bested by government

by Henry Cuningham

About 300 Fort Bragg civilian employees recently cheered at the news that a private contractor lost a bid to take over their jobs.

After a four-year study, Army officials determined the Public Works Business Center can perform its functions over the next five years for slightly less than \$89 million. That is about \$900,000 cheaper than a proposal submitted by a competing private contractor, officials said.

The difference is a "narrow margin" in the world of government and large businesses, COL Tad Davis, Fort Bragg's garrison commander, told the workers at a morning meeting at the Noncommissioned Officers' Club.

"I'm happy about it," Larry Pace said after the meeting. "I think it relieved a lot of tension." Pace, who is 51, works with grounds and gardens and has been employed at Fort Bragg for 22 years.

The Public Works Business Center provides housing and engineering services for Fort Bragg soldiers and their families. Its workers also are responsible for environmental matters on the 160,000-acre post. The center employs engineers, electricians,

plumbers, environmental officers and planners who help determine where buildings will be located.

"I think it's great," said Danny Terry, an environmental officer. "You have to work here to understand how much work they put into this. I think they've done a fantastic job." Terry, who is 51, has worked at Fort Bragg for 20 years.

The announcement is part of the Army's Commercial Activities Studies to determine what jobs can be done cheaper by private contractors than by federal workers. During the past 22 months at Fort Bragg, five of six planned studies have been completed.

The federal workers in the Public Works Business Center will still have to become a "most efficient organization" with fewer people by December, officials said.

During the past two years, out of awareness of the need to streamline, the Public Works Business Center has reduced its work force from 515 to 357 workers, Davis said.

Fort Bragg has looked for ways to use technology to have five workers perform

jobs that took 12 or 15 people a dozen years ago, Davis said.

The center will have to abolish about 15 more positions, Davis said.

Between 45 and 50 jobs positions will be changed to a lower pay grade, he said. Incentives will be offered to encourage workers to depart or retire early. Efforts will be made to get displaced workers jobs in other organizations on Fort Bragg.

Some people at the meeting work at the Public Works Business Center because of cutbacks at Fort Bragg and other military installations. Sid Williamson relocated after the Charleston Shipyard closed. "It's traumatic for anybody losing jobs," said Williamson, who is 48. He has worked in the civil service jobs for 28 years and at Fort Bragg for eight years.

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Henry Cuningham is the military editor for the Fayetteville Observer.

(Extracted from an article in the Fayetteville Observer.) **PWD**

(continued from previous page)

and to utilize private sector resources to reduce the military housing deficit and renovate existing housing. To accomplish this, the program uses financing authorities enacted by Congress in the 1996 Defense Authorization Act - Military Housing Privatization Initiative (MHPI).

Over the first ten years of the project, the existing housing units and communities will be improved and the deficit will be built out as follows:

- Construct 308 deficit reduction units
- Renovate/Reconstruct 2,750 units

In addition to the housing construc-

tion/renovation, RCI projects incorporate the concept of building "communities." The Fort Meade initial development scope includes the following:

- Construct five Neighborhood Centers that will form the heart of the new community designs
- Improve community landscaping by constructing parks, trails, and playgrounds linking neighborhoods with community services such as schools, retail areas, and public buildings

Privatization brings with it a number of improvements for the Fort Meade Community. Among these improvements are localized neighborhood management,

larger maintenance staff, and lawn care, just to name a few.

The estimated total development cost for the Fort Meade Housing Initiative is \$430 million for the initial ten-year development period and approximately \$970 million over the course of the remaining 40 years. The first ten years of development provide for all of the renovation and reconstruction necessary to bring the Fort Meade housing stock to the "all green" adequacy standard by 2010.

For additional information on the Fort Meade RCI Project, please call (301) 677-7748. Information on the Army's RCI Program can be found throughout the website: [rci.army.mil](http://rci.army.mil). **PWD**



# Fort Hood partnership shares success

by Ed Veiga

Unique in the field of Military Housing Privatization is the partnership called "Fort Hood Family Housing LP" (FHFH), which began operations on 1 October 2001.

The Army signed on with Actus Lend Lease, its private enterprise partner, to change the way business was being done at one of the largest installations in the Free World. Fort Hood, Texas, provides homes to over 5900 military families on this sprawling Central Texas installation, which celebrates its 60th birthday this year.

Some of the homes on Fort Hood are nearly as old as the installation, having been built in 1948. That, in itself, is a challenge. Add to that, a high demand for on-post housing with an average of more than 4100 soldiers on the waiting list, and a validated deficit of 860 quarters, and you can see that this partnership had its work cut out.

The project at Fort Hood calls for the construction of 974 new units, and through a program of major renovations, revitalizations and selected demolitions, attainment of a "Green" status for housing at Fort Hood is expected by 2009.

In addition, a robust development plan will result in the development of community amenities including playgrounds, hike and bike trails, and a host of facilities that will connect neighborhoods and develop a true sense of "home" for Fort Hood's families.

"The partnership and project have exceeded all expectations," according to Robert Erwin, Fort Hood Housing Chief. "The introduction of private enterprise 'best practices' has combined with the decades of experience of Army housing professionals to provide the best answer possible for Army families at Fort Hood."

Jim Evans, the asset manager for FHFH and Executive Vice President with Actus Lend Lease, is equally enthusiastic. "This is a true partnership. It's about taking the

best that the Army and the private business world have to offer and making it pay off for soldiers and their families. It's definitely the right thing to do."

Within three weeks of commencing property management, maintenance, business and construction and development operations, FHFH saw early success begin with some of those 50-year old quarters, known as McNair Village. The revitalization was impressive enough, but the project was made even more appealing as these three bedroom units were redesignated as two bedroom units. This gives Fort Hood's junior families bonus space in addition to beautiful homes with central air and heat, new appliances and patios with privacy-fenced backyards. Just a couple of weeks later, other major projects broke ground.

The installation's Comanche II Village, included 640 two bedroom stacked apartments (four to a building), started the transition which will result in 320 four bedroom town homes, averaging over 1800 square feet each. The 1970s-era homes will be dramatically renovated to serve as inviting homes to larger families, while reducing the density of families and cars in the neighborhood.



*"Infill" housing takes root among the existing homes in Comanche II Village at Fort Hood.*



*Families at Fort Hood are invited to tour the model homes designed to provide hospitality and great decorating ideas.*

A feature shared by McNair and Comanche II, is the model home. Property management teams host soldiers at these fully furnished model homes on a daily basis. Besides serving as a more hospitable location to introduce families to housing at Fort Hood, it provides a great frame of reference for how furniture might look and fit in the homes. Additionally, soldiers are introduced to decorating ideas which were accomplished by shopping at the lowest-cost retail outlets available, making the whole experience very affordable. ➤



# Army announces RCI initiative at the Presidio and Naval Post Graduate School

by Karen Baker

The Army recently announced the selection of the private firm that will partner with the Army to develop the Community Development and Management Plan (CDMP) at the Presidio of Monterey and the Naval Post Graduate School in Monterey, California, as part of the Army's Residential Communities Initiative (RCI). Under the RCI program, the Army plans to privatize Army family housing at 28 installations throughout the United States.

Clark Pinnacle Family Communities, LLC will work with the Army to develop the CDMP that will serve as the blueprint for the Army's residential community at the Presidio of Monterey and the Naval Post Graduate School. This planning phase is expected to take approximately six months. Upon acceptance of the CDMP by the Army, and review of the plan by DoD, OMB and Congress, it is expected that project implementation will begin in the Spring of 2003.

This is the first RCI project in which the Army has worked jointly with another Service. The Army will act as the lead agency in this joint effort to privatize the Army housing at the Presidio of Monterey and the Ord Military Community and the Navy family housing at the Naval Post Graduate School and the LaMesa housing area.

Current estimates expect approximately \$420 million in private sector investment in the initial development phase of the project for renovation and construction of the family housing communities at the Presidio of Monterey and the Naval Post Graduate School.

The CDMP proposed by Clark Pinnacle, upon approval, will result in the construction of approximately 2,200 new or replacement housing units at the Presidio of Monterey and the Naval Post Graduate School. Clark Pinnacle will develop, redevelop, construct, own, manage and maintain the housing units; maintain the grounds of unoccupied and public areas; construct and maintain the roads and infrastructure in associated areas; and reinvest profits for future renovations and replacements.

RCI will improve, in a short period of time, the quality of life for more than 4,000 service members and their family members who reside at the Presidio of Monterey and the Naval Post Graduate School. The overall family housing appearance and function at both sites will weave the natural and built environments together as a planned community using traditional community land planning guidelines, while at the same time protecting cultural resources and meeting environmental responsibilities.

The Presidio of Monterey and the Naval Post Graduate School project is the Army's sixth RCI project. The Assistant Secretary of the Army for Installations and Environment has overall responsibility for the RCI program. Under RCI, service members who reside on post will receive the Basic Allowance for Housing (BAH) and pay rent to the developer. These rental revenues will cover all development costs, operations and maintenance costs, and debt service.

The Army has a \$6 billion revitalization requirement that would take many years to alleviate under existing procedures. In 1996, the Military Housing Privatization Act provided each Service the authority to leverage scarce funds and assets to obtain private sector capital and expertise to build, operate, manage, and improve military family housing. Together with traditionally-funded military construction and increased housing allowances, privatizing family housing under RCI is an essential element in solving the Army's acute family housing problem.

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New home construction is underway as well in two areas. In Comanche II, "infill" construction is providing new homes among the existing ones. This project will provide 36 duplex homes by fall of this year.

The second new construction project is making the transition from concrete slabs to recognizable homes as frames

appear signaling the birth of 224 new homes in Kouma Village.

Community amenities are popping up all over post, including landscaping, recreational facilities, and walking trails that will provide a true sense of neighborhood.

The total effect has been one of quick and dramatic change to the face of military housing at Fort Hood. Residents are impressed with the results and the overall level of services as evidenced by the 99%

satisfaction rate registered on surveys. At Fort Hood, it's a whole new game.

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## The end of the line...

by Alexandra K. Stakhiv

The last train stop, the end of the line... June 28, 2002, marked the retirement of George F. Braun, Deputy Chief of the Installation Support Division (ISD) at Headquarters for the last two years and longtime Engineering and Housing Support Center/Center for Public Works (EHSC/CPW) Executive Director. Most of us would be hard pressed to think of someone who has worked more closely with installations, and DPWs in particular, or who tried harder to provide them with the support they needed. Alas, so much institutional knowledge has departed with him.

Praising him for his efforts in making installations better places for soldiers to live, work and raise their families, BG Carl Strock, Director of Military Programs, presented George with the Meritorious Civilian Service Award and the prestigious De Fleury Medal. "George Braun is a perfect example of the Corps value integrity," said Strock, "No matter who you are, whatever your grade or rank, you always get the same person, with no pretense. The presence of so many of George's family, friends, co-workers and former co-workers here today is testimony to that."

In the overstuffed memory book presented to him upon retirement, almost everyone commented on George's dedication, leadership, and selflessness. "When I think of leadership, I think of George leading us through the transitions from FESA to EHSC to CPW to ISC to ISD to ACSIM," said Tony Vajda, former co-worker currently with ACSIM. "When I think of people skills, I remember how George always tried to share successes and make people feel like they were an important part of our business."

In a career that spanned some 33 years, George seemed destined to spend most of it in the public works arena. The year 1972 marked George's entrance into this field, when as a captain in Vietnam, he became an area engineer responsible for construction operations and maintenance in the Danang region.

"When I arrived in Vietnam, I found that, with the exception of construction engineering, the work was done strictly by contractors," said George. "As a facilities engineer, I did not have inherent government public works capability—I could only oversee the contract and approve the work. Interestingly enough, this very early privatization worked quite well."

With his small government team consisting of a lieutenant, a sergeant, and two civilians, George managed a contractor workforce of some 300 employees. They worked hard doing all the usual public works activities, including repairing facilities, generating power and providing potable water. Typically, George said he didn't recall if it was economical or not. "We were in the middle of a war and things like that weren't very important."

Vietnam was also where George developed and honed his skill for mediation. His last two months in Vietnam were spent on the Peace Commission as the Military Region I Engineer supporting the eight nations involved in the peace talks—the U.S., North Vietnam, South Vietnam, Viet Cong, Canada, Hungary, Indonesia and Poland. When the agreement for the U.S. forces to pull out was reached on 31 March 1973, they had just six hours notice. George was on the last plane out, leaving behind only the Marines guarding the embassies.

From Vietnam, George went to Fort Indiantown Gap in Pennsylvania. The Army had recently established a new position called the Assistant Facilities Engineer for about 20 installations to give the Army's junior captains some facilities experience before they moved up the ranks. The program never really took off, probably because of the drawdown after Vietnam, said George.

Thus he spent most of his year at Fort Indiantown Gap as Chief of Engineering Plans and Services. "This was an interesting if somewhat erratic job because the post



George F. Braun

had a heavy influx of soldiers in the summer and was very quiet in the winter months," he said. "We had a workforce of 120 in the summer and only 40 in the winter."

Ironically, after the fall of Saigon in 1975, Fort Indiantown Gap became a major site for refugees from Vietnam. By then, George had relocated to Fort Lee, Virginia, as a systems engineer in the Systems Development Division in the Directorate of Construction, Office of the Chief of Engineers (OCE).

"I first met George at OCE headquarters when he was a young, slim and sharp-looking captain looking for a job, and I hired him for the expanding IFS development program," reminisced Pete Sabo, retired long-time Director and Chief for EHSC/CPW/ISD systems operations.

"Having spent one and half years in the facilities business," George said modestly, "I was suddenly the so-called 'senior expert' on staff in how to manage DPWs." Now a civilian, his first assignment was to develop the Work Management module for IFS.

During the three and a half years that he spent at Fort Lee, George kept looking for a job in Germany where he had served prior to his stint in Vietnam. He succeeded in the summer of 1977 and moved to Kaiserslautern, an Army community where housing was owned by the Air Force. As the Deputy Facilities Engineer, he had a government staff of 45 people to do planning. ➤



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programming, engineering design, and work management. All blue collar and operations work was already being done by contractors, since Kaiserslautern had converted to this system a year earlier.

On Christmas Eve 1979, George moved to Wiesbaden as the Facilities Engineer for the military community there. The Director of Engineering and Housing wished George "Good luck!" as he and the rest of the DPW staff started a two-week vacation. It was Christmas, the kids were home from school and all 1200 sets of family quarters were occupied. Needless to say, George and his tiny staff were kept very busy over that holiday.

George was still in Wiesbaden during the first failed rescue attempt of the hostages in Iran. When the hostages were finally released, they were brought to the Wiesbaden hospital, better known as the "political first point of medical help" for all the embassies in Europe," he said.

In the summer of 1982, when his five-year limit in Europe was up, George reluctantly returned to Washington, D.C., as the Staff Engineer in the Facilities Policy Directorate. Realizing that he and his wife Pam had moved 13 times in the last 12 years, sometimes twice in one year, George decided it was time to get his family settled

and the area offered a wealth of government jobs.

"I worked on systems and work management stuff, recreated 420-10 and rewrote 420-6," he said, "but I think my most significant and longest lasting accomplishment was getting the DPW Awards Program established. While at Wiesbaden, I had noticed that some guys had USAFE (US Air Force in Europe) awards hanging on their walls, which said they were the best at what they were doing. The Army didn't have anything like that and I suggested starting a similar awards program."

MG Norm Delbridge, the Assistant Chief of Engineers at that time, was looking for ways to improve the recognition of people working in the facilities business, and he told George to forge ahead. George came up with the idea of having the MACOMs evaluate their peers and the rest is history. The program in place today is basically the same one George designed.

In 1987, George joined FESA, the Facilities Engineering Support Agency as the Chief of the Customer Support Division, dealing with systems management on installations. Shortly thereafter, he was recruited to help design an organization that combined the operational aspects of FESA with the policy aspects of the Office of the Chief of Engineers. In September 1987, the Engineering and Housing Support Center was created with Dr. Lewis Blakey at the helm.

"I was promoted to Executive Director of EHSC in 1988," said George proudly, "and I stayed in that job throughout its many successor organizations in an equivalent position."

Rik Wiant, ISD Planning Branch, summed up George's role succinctly, "There were a lot of good folks who made EHSC/CPW the organization that it was for so many of us throughout the Army, but I shall always think of George as the heart and soul of ours."

Not unexpectedly, many others felt the same way. "George was always the glue that held EHSC, CPW and ISC together, and the Army public works community has immensely benefited from his energy, interest and applied tal-

ent," wrote Greg Tsukalas, another former co-worker currently with ACSIM.

In parting, I asked George to look back and give Digest readers his take on how the public works business/installation support had changed over the years and where it was headed in the future.

"When I started with the Army, he replied, "we had very strong technical support organizations which built themselves up with very experienced, installation knowledgeable, operational and engineering skills type people. FESA, EHSC, and CPW were all staffed for many years with people who had very specific technical skills, typically in a very narrow area of the facilities business. This system worked quite well through the 1980s when almost the entire workforce at the installation consisted of government people—multi-hundreds of people on the DPW staff.

"For example," he explained, "when I was in Wiesbaden, the workforce consisted of 798 people in the DPW, covering everything from plant operations to negotiating utility rates to maintaining housing to running housing to providing power to dealing with public water distribution systems. We needed a strong technical support cell to back up the needs of those very large workforces—a support cell with a lot of capabilities and skills and very specific technical knowledge.

"Over the years, particularly in the last five, I've seen more and more contracting out. Today, we probably have 50 percent of the workforces contracted out. At the same time, a small residual workforce has been left at the installation and most of the technical stuff is done by the contractors. We've really taken our installations down in terms of numbers and technical capabilities.

"From 1987 to 1995, the Army's public works technical support center went through four major restructurings, all focused on downsizing. By 1999, we were down from more than 250 in our heyday to some 30 people. We took apart CPW, which had the technical capability, and at the same time, we left a much smaller workforce at most installations faced with monumental technological changes. The coming



*George and Pam Braun listen as Kristine Allaman, ISD chief, bids them farewell.*



# Task Force drives TIM implementation

by Stan Shelton

Transformation of Installation Management (TIM) remains on track as a Task Force drives this initiative towards its 1 October 2002 implementation!

In support of Army Transformation, TIM establishes a corporate structure for managing installations, removing day-to-day installation management from the mission commanders' workload. It supports and enables mission commanders in the preparation and execution of their mission. It will provide consistent and equitable services across the Army—across all installations, to all active and Reserve components.

With the Transformation of Installation Management comes the new Installation Management Agency, consisting of a headquarters located in Washington DC and seven regional offices geographically aligned in the Northeast, Southeast, Northwest, Southwest, Europe, Pacific and Korea. The IMA will be activated on 1 October 2002.

Under the new structure, all aspects of installation management to include resourcing, direction, accountability and reporting will be through the IMA regions. Regional directors will be rated by the HQ IMA Director and senior-rated by the ACSIM. Garrisons Commanders will work for the Region Directors and will be rated by Regional Directors and senior-rated by the Senior Mission Commander on the Installation. This rating scheme will link Senior Mission Commanders to the base support process and ensure mission support needs are met. Strategic direction from MACOMs and senior leadership will be provided through the Installation Management Board of Directors (IMBOD).

The IMBOD will provide strategic direction for the Army and be the principal committee that adjudicates issues pertaining to all installation activities. The Board will recommend a strategic plan, prepared by ACSIM, that outlines goals and objectives, as well as recommend program,

resource and finance strategies for implementing operations of the strategic plan.

A dedicated team of professional soldiers and civilians staffs the Transformation of Installation Management Task Force (TIM TF), an operation officially stood up in March 2002. The TIM TF is composed of teams covering Resource Management, Operations and Organizations plans, Strategic Communications, Documentation, Special Installations, Emerging Issues, Human Resources, Information Technology, Planning and Transition.

Mr. Philip E. Sakowitz Jr. currently heads the TIM TF and has accepted the position of Deputy Director for the Installation Management Agency. "It's an honor to lead an initiative that will contribute significantly to the Army transformation. I am confident that this effort will result in improvements that will tangibly enhance quality, reliability, and efficiency across the full spectrum of services," said Sakowitz. ►

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of computers over the last 20 years, for example, brought tremendous change.

"When you do that," George continued, "you take down the level of skills at an installation to the point where it's very difficult for the DPW who has somehow managed to maintain an in-house workforce to have any depth whatsoever in accomplishing public works technical stuff. We've gotten to the point where people don't even know what questions to ask when they have problems," he lamented.

"Of absolute necessity, we must place (and are placing) increasing reliance on contractors to provide public works technical expertise. There is no shortage of highly competent contractors available to do this. Many have hired former DPWs, both military and civilian, to staff their organizations. Public facilities operations

and maintenance is no longer a big and lucrative business on which we must place greater reliance.

"So what can or should we do at this stage? Well, we certainly can't go back," said George. "It's time we started steering in a different direction. I think we need to establish a center focused on the business of having public works provided by contractors. This means we need to have folks who not only understand the public works business, but have experienced and understand the various methods of contracting for and measuring the quality of public works services as well. Not an easy task, but the experience gained by the Army in the last 15 years means people with these skills do exist. It's up to us to seek them out!

"But someone else will have to do that. My work with installations is finished—it's time to pass the baton," he

concluded. "Public service has afforded me great opportunities and a great life. Now it's time to move on."

While the Brauns hope to travel a lot in the coming years, helping others is still at the top of George's long to-do list. He plans on giving time back to society and the Nation by offering his services as a volunteer to libraries, museums, and hospitals.

Angie Stoyas, Chief of Military Programs' PREP, said it best, "George's presence is what gave character to whatever organization you were a part of and life to each group within that organization. This in turn made us in the group feel like a *family* away from home."

George, your *family* misses you already.

*Alexandra K. Stakhiv is the editor of the Public Works Digest.* **PWD**



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Transformation of Installation Management uses installation support resources more efficiently by constructing a corporate distribution chain for funding and executing installation programs.

In general, the management direction will flow from Department of the Army Proponents through the IMA headquarters and regional offices to the garrisons. The significant change is the command and control of garrison personnel, which now shifts from 14 Major Army Commands (MACOMs) to the new IMA.

To minimize risk, the IMA will let the well-established MACOM processes do the administrative elements of funding work in FY03 – in other words act as the “banker” for the IMA. Active Component garrisons will receive funding through their previous MACOM. However, this base support funding will be fenced and under the operational control of the IMA. To further minimize risk we will delay documenting garrison organizations under IMA TDAs until FY04. This allows time to make sure we resolve all organizational issues unique to each installation. This also delays processing of personnel actions to an FY04 effective date, giving us enough time to ensure the correct data links are made to the pay system. This minimizes the risk of pay problems for individuals. In FY 03, however, the IMA will resource its regions and headquarters and all employees will be documented on IMA TDAs.

Beginning FY04, Active and Reserve Component garrisons and Regional Support Commands will receive their funding directly from the HQ IMA. Mission commanders will continue to receive their funding through the mission chain of command (MACOMs), eliminating the opportunity to migrate funds between mission and base support. HQ IMA will retain a small withhold for resolution of unfore-

seen and/or emergency requirements that arise during the year of execution.

Department of the Army policy and oversight for installation management remains the Assistant Secretary of the Army for Installation and Environment (ASA (I&E)). The Assistant Chief of Staff for Installation Management (ACSIM) will serve an additional role as the principal advisor to ASA (I&E).

Transformation of Installation Management will gradually introduce changes throughout the entire installation management infrastructure. Although the IMA will be activated in 1 October 2002, the TIM process is an ongoing effort.

“Implementing change is the best way to create improvements. TIM is changing the way we operate and will ultimately have a positive impact on installations and on the people and organizations they support,” said Sakowitz.

Transformation of Installation Management is one of the largest reorganizations in Army history. Leadership takes all precautions to balance speed and caution in implementation—to ensure a high level of

support to the mission as we transition to the new organization and to ensure that we take care of people in the process. The benefits of change created by TIM lie in the end result: A modernized corporate structure that puts the Army on the cutting edge of managing mission support while delivering consistent and equitable services to all. The motto says it all, the IMA will “Sustain, Support and Defend!”

More information can be found on TIM at: <http://www.hqda.army.mil/acsimweb/CIMhomepage.shtml>

Or by contacting the TIM Task Force Strategic Communications Team:

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Stan Shelton is the Deputy Chief of the Plans and Operations Directorate, ACSIM.

PWD

Note: The Interim Brigade Combat Team has been renamed  
The Stryker Brigade Combat Team





# Europe District—improving soldier support

by Grant Sattler

Forward deployment is improving the U.S. Army Corps of Engineers, Europe District's ability to effectively serve its Directorate of Public Works customers. Europe District is improving support to soldiers by making the district's services more accessible in collocating a Regional Program Manager (RPM) with each of U.S. Army Europe's seven Area Support Groups.

"The overall purpose for an RPM is to facilitate communication between the customer and the Corps, and to assure excellent support by USACE to the DPW," said Jim Spratt, Regional Program Manager to the 104th ASG, headquartered in Hanau, Germany. "It's customer service for engineering services."

The Europe District established the RPM concept in 1998 to expand the customer focus provided by the Corps of Engineers Area and Resident Engineer Offices collocated in military communities in Europe.

In addition to Product Delivery Teams, RPMs also interface regularly with the Europe District's Construction and Engineering Division, as well as Project Management, Installation Support, and Environmental branches at the Wiesbaden headquarters. "When a customer has a problem, they can come to us and we can be the traffic cop to where they need to go in our organization," Spratt said.

The 221st Base Support Battalion Director of Public Works (formerly the 104th ASG chief of the Engineering and Construction Division) Michael D'Amico said "It used to take a lot of our energy just to track down who to talk to, and then some gave better answers than others. This way we go to one guy and say 'Jim, we've got a problem here and we need to get a status.'"

The RPMs' activities vary from day-to-day troubleshooting on projects to programmatic work. An RPM's focus at a particular ASG and its subordinate Base Support Battalions or Area Support Team also varies

with the approach taken by that DPW on work execution and what services they choose from the Corps.

"The RPM is supposed to be a valued member of the community DPW staff. When there is an engineering issue that comes up and people ask us for input, we're able to tell them, hey, this is the way we would go on this particular issue," Spratt said. RPMs aim to be honest brokers when requests are outside the Corps' core competencies. "It sometimes happens that the community comes to us and asks for engineering advice and then may do it without the Corps."

Deputy District Engineer Lloyd Caldwell said, "As an adjunct member of the DPW senior staff, an RPM serves as a conduit to the collective know-how of Europe District and USACE total capabilities. They also bring personal professional knowledge as an advisor or staff officer." RPMs are available as mentors for Career Program-18 careerists and resources for Army engineers in the DPW community on corporate initiatives from the Army's Engineer, such as teaming and learning organizations, Caldwell said.

"It is important to show the community that you are not a salesperson, that you're giving them sound advice," Spratt explained. "The mission is to serve the community and serve the Army."

Being collocated makes the Corps more visible.

Pat Brady, 104th ASG acting EP&S chief said that even in the age of video teleconferencing "... the bottom line is that people still want to talk to people face to face. It's an axiom of business."

Making frequent visits from the Wiesbaden headquarters out to customers is not sufficient, Spratt explained. The distance and time involved in travel are a hindrance to being truly accessible, especially for communities in the BENELUX, Italy, or southern Germany.

Living and working in the communities they serve does more than save RPMs travel time. "One of the things I've found is that you have a greater understanding of the concerns of the community," Spratt said. "Here, when the DPW has an issue, he calls me directly, and when he's upset with the Corps he tells me directly. On the other hand, when he's happy with the Corps, he tells me that too."

RPMs mesh different methods of doing business within the Corps and DPWs.

Part of making problem resolution easier is the teamwork coming about since the Corps pitched its RPM tent in the DPW camp. "The DPW - Corps relationship has sometimes been adversarial," Spratt said. "Some of it's natural and some of it's healthy. It's competitive, it's limited resources and possibly a perception from the communities' standpoint that we don't understand their problems. But we're all part of the 'Engineer Regiment.'"

Europe District Deputy District Engineer Lloyd Caldwell said "When we understand that we have the same objectives, and demonstrate teamwork, we both focus our energies in positive ways and find win-win solutions. The RPM is one way we in the district can initiate that."

Spratt said, "I think when you humanize that and you have a face to a name, you can't stay focused on negatives. You have to say, 'Well, they're here, they're working with us, let's get over it, let's get the mission done.' I think that kind of teaming helps a lot."

Brady agreed, "It helps to have somebody interested in the ASG or BSB and not as an 'us' vs. 'them' [mentality] ... it really makes a difference when the support is from a 'we' perspective."

The benefits of collocation are encouraging Europe District to accelerate the placement of more people in the field, primarily for environmental and force ➤



# Research team wins international NOVA Award

by Dana Finney

A research team led by the U.S. Army Engineer Research and Development Center's Construction Engineering Research Laboratory (ERDC-CERL) received the prestigious NOVA Award sponsored by the international Construction Innovation Forum (CIF). The award recognizes technology innovations that have had positive, important effects on construction to improve quality and reduce cost. The ERDC-CERL team was cited for work on electro-osmotic pulse (EOP) technology, which prevents water seepage into underground structures at about half the cost of trenching and tiling.

Project leader Vincent F. Hock accepted the award at CIF's ceremony in Michigan. In addition to Hock, ERDC-CERL team members include Michael McInerney, Sean Morefield, Charles Marsh, Sondra Cooper, and Matthew Brady. Award recipients from ERDC's Geotechnical and Structures Laboratory, Vicksburg, Mississippi, are Dr. Charles Weiss and Dr. Philip Malone.

ERDC developed this technology with partners from industry and academia, including Ray Slaback and Michael Connor, Drytronic, Inc., Madison, Wisconsin; Philip

Chitty, APS Materials, Dayton, Ohio; John Klus, University of Wisconsin; and Bjorn Koritz, Electropulse Technologies Commercial, Inc., Greenwich, Connecticut.

Frank Cooper, with the Directorate of Public Works at Fort Jackson, SC, is also named on the award.

CIF is an international nonprofit organization formed in 1987 to identify construction innovations as they emerge and share them with others in need of creative solutions to common problems.

The NOVA Award is CIF's most distinguished honor. A jury of internationally recognized experts selects NOVA winners after an intense, thorough investigative process. ERDC-CERL's award marks the first technology developed by a Department of Defense (DoD) laboratory to be so recognized.

The EOP technology prevents or reverses groundwater intrusion into below-grade structures. It is based on the concept that an electrically charged liquid moves under the influence of an external electrical field. A pulsing DC voltage is applied between opposing electrodes in a concrete wall/floor slab and the surrounding earth to produce



Frank Cooper, member of the award-winning EOP team from the Fort Jackson DPW, with the NOVA award.

an electric field that moves water from the dry side toward the wet side.

ERDC-CERL investigated and helped optimize the EOP process as a maintenance and repair option at DoD facilities that have water intrusion problems. It has been demonstrated successfully in numerous facilities and is currently being evaluated for use in civil works support structures.

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protection/anti-terrorism projects, Spratt said. "There's always the dilemma between concentrating your limited resources in one location, and serving these distant customers, or decentralizing — going out in the field and having semi-autonomous groups that serve on a local level," he said. "I think we now, as a district, are focusing on having an appropriate level of services decentralized."

Factors of economics and expertise compete with decentralization, Caldwell said, "But we're finding opportunities to put more key members of the Project Delivery Teams closer to the customers. We want to expand our traditional Area and Resident Engineer capability with

more forward-deployed resources and elements of the

PDT, and in the process eliminate some of the traditional constraints of organizational boundaries." He said the district is adapting its processes to assure the quality of professional engineering services is enhanced. The Regional Program Manager concept appears to be the right direction from the customer's perspective as well.

"The value [of RPMs] is extensive. The Corps is doing a lot for us. Doing studies for us, doing MCA projects for us, doing housing projects, OMA projects, and they're all fraught with the complexity of getting a project from somebody's brain to a finished product ... to actually get what the user wants, within budget. If Jim

weren't here, we'd have to contend with a number of other players and that's difficult," D'Amico said.

That RPM concept was also strongly endorsed in January 2002 when USAREUR presented the Installation Support Award for 2001 to Europe District on the basis of nomination from the 100th ASG, largely because of the excellent support from Rusty Mizelle, the RPM for the 100th ASG, Caldwell said.

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Grant Sattler is the Chief of Public Affairs for the Europe District. **PWD**



## New guidance for cleaning indoor firing ranges

The U. S. Army Corps of Engineers has prepared new interim guidance for cleaning lead hazards at indoor firing ranges (IFRs), meeting a need that has been ongoing for the last few years, as installation commanders have begun converting indoor firing ranges to other uses.

The USACE headquarters, Environmental Division, Directorate of Military Programs, issued the new guidance on 10 April 2002, in the form of a Memorandum for USACE Commanders: Subject: "Interim Guidance for Lead Cleanups at Indoor Firing Ranges." The Memorandum contains IFR lead hazard cleanup criteria and related procedures. It reflects the clearance criteria of 200 µg

Pb/ft<sup>2</sup> for all surfaces, which was determined by consensus of DoD firing range experts and industrial hygienists in October 2001.

The USACE interim guidance supplements U.S. Army National Guard publication addressing the operation of indoor firing ranges: NGB-AVS-SG, All States (Log Number P01-0075) Army National Guard (ARGN) Safety and Occupational Health Program – POLICY AND RESPONSIBILITIES FOR INSPECTIONS, EVALUATION, AND OPERATION OF ARMY NATIONAL GUARD INDOOR FIRING RANGES; Addendum – Guidelines for IFR Rehabilitation, Conversion and Cleaning, 5 December 2001. The guidance will remain

in effect until the U.S. Army's Center for Health Promotion and Preventive Medicine (USACHPPM) completes Technical Guide (TG) 206, "Indoor Firing Ranges."

*For technical assistance regarding this guidance, please contact the HQUSACE Safety and Occupational Health Office (Robert Stout, (202) 761-8566 or Richard Wright, (202) 761-8565), or the USACE HTRW Center of Expertise (Rod Dolton, (402) 697-2586, rod.j.dolton@usace.army.mil or Thomas Donaldson, (402) 697-2583, thomas.l.donaldson@nwd02.usace.army.mil). PWD*

## Green buildings—efficient, comfortable and productive

by Alexandra K. Stakhiv

The National Building Museum in Washington, DC, was the site of the last lecture in a series on "Buildings for the 21st Century" sponsored by the US Department of Energy and the museum.

No newcomer to Sustainable Design and Development (SDD), guest speaker of the day William D. Browning is the founder of the Rocky Mountain Institute's Green Development Services in Colorado and recipient of the 1999 President's Council on Sustainable Development Award. Highlighting the more intriguing features of some very "green" buildings both here in the United States and in Europe, Browning discussed the secrets to developing not only more comfortable and energy-efficient but productive buildings.

The development of green buildings has become a fast-growing area where efficient use of resources is integrated with environmentally responsive and culturally sensitive design. It relies on interconnecting such issues as site and building design, energy and water efficiency, lighting and

mechanical design as well as building ecology and resource efficient construction.

The Army is incorporating sustainability into its construction projects too. Each year OACSIM and HQUSACE will designate MILCON projects as SDD Showcase Projects. For FY 02, these include barracks at Fort Richardson and Fort Lewis, an education center at Fort Polk and a community facility at Fort Gordon, among others.

Browning's examples included office buildings, convention centers, education facilities and mixed-use developments (business with residential). Some of the more interesting design techniques used were natural ventilation, green roofing, passive solar heating, and daylighting.

It is interesting to note, said Browning, that as far back as 1871, the architect Alfred Mullett designed a natural ventilation system for the Old Executive Office Building. The system is not operational today, but it is being restored.

Browning also explained that the use of daylighting was becoming very popular



*Interior/exterior of Condé Nast building.*

based on the results of recent and ongoing studies. One such study showed that students in daylight facilities did 20-26 percent better on tests. Furthermore, studies done on school children showed that those in classrooms with windows and access to daylight did 25-26 percent better in their overall schoolwork. Businesses are getting on the band wagon too, he said. At Walmart, a study showed that daylighting only half of one of their stores led to significantly higher sales per square foot in that area.

Here are few of the buildings Browning discussed:

- The Condé Nast Building at Four Times Square in New York is 48 stories ➤



# Fort Campbell deconstructs WWII buildings to assess salvage options

by Dana Finney

With help from USACE's Engineer Research and Development Center (ERDC) and other partners, Fort Campbell, Kentucky, is demonstrating different methods to deconstruct surplus WWII wooden buildings. The project seeks to reduce the time it takes to dismantle buildings and to maximize opportunities for reusing or recycling the salvaged materials.

The partnership includes Fort Campbell's Public Works Business Center (PWBC), ERDC's Construction Engineering Research Laboratory (CERL), U.S. Environmental Protection Agency (USEPA), Habitat for Humanity (HfH), Americorps National Civilian Conservation Corps (NCCC), U.S. Department of Agriculture Forest Products Laboratory, and the University of Florida. The U.S. Army Corps

of Engineers (USACE) and USEPA are funding the demonstration, which began in May 2002.

Within the Defense Department's building inventory, the Army alone has more than 53 million square feet of excess space. These unneeded facilities place a huge maintenance burden on operation and maintenance budgets while occupying land in the cantonment areas better suited to serve current mission requirements. The Army has an active program to divest itself of these buildings and has eliminated over 71 million square feet in the past 10 years.



Removing wood siding that is coated with lead-based paint.



Volunteers from AmeriCorps remove roofing from a building at Fort Campbell.

"The primary way our installations have disposed of these properties has been by demolition and landfilling," said Malcolm McLeod, with the Environmental Division at USACE Headquarters. "This produces a major, and expensive, solid waste problem. At some installations, up to 80 percent of landfill space has been taken up by this demolition waste." ➤

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high, uses 40 percent less energy per square foot, has non-toxic materials and includes an on-site fuel cell. "The intriguing thing about it is that tenants don't seem to be worried about being so high," said Browning, "even though the building stands alone and isolated with no other skyscrapers close by. I don't know why, maybe because of the daylight, but they say they feel very safe and secure."

- Zion National Park Visitors Center in Utah is not just new technology but passive solar. Energy use is reduced by passive conditioning with an evaporating cooling system and thermal massing. The Center even has energy-efficient landscaping and fits into place at its location easily.
- In the Reno Post Office in Nevada, workers sorted more mail after an energy retrofit was completed and productivity increased 6 to 16 percent.

- At Verifone Headquarters in California, daylighting could only be done through the ceiling because of strict building codes. "Today 80 percent of the workers don't turn on the lights and absenteeism has dropped by an amazing 40 percent," Browning said. "The workers in the building next door were unhappy and the company had to daylight that building as well."
- At the Herman Miller SQA in Michigan, gains in productivity were mixed, once again proving the benefits of daylighting. Of the three shifts observed, the daylight group had the most gains, with slight gains in the swing shift and none in the night shift.
- The Letterman Digital Center, at the Presidio in California was designed with a raised floor that has air moving in it. The air is exhausted out at the top projecting 50 percent in energy savings.

But by far, the most interesting and unique examples were the two skyscrapers

in Germany, which Browning called "double-skinned" buildings. These have sealed-glass walls or "skins" within the outer glass walls, which more than makes up for the poor performance of the glass itself. Employing radiant ceilings, the roof of the building opens at the core, and employees are never more than two floors away from a lush "sky garden."

"Many technologies are available today to make your buildings, new or old, turn green," said Browning. "Strategies such as proper siting and airtight construction as well as installing energy-efficient equipment and appliances and renewable energy systems can reduce the amount of energy a building needs to operate and keep its occupants comfortable."

But successful green buildings must also blend into a community. They must preserve both natural and historical characteristics and use existing infrastructure to reduce urban sprawl," he concluded.

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*AmeriCorps volunteers receive training prior to deconstructing the first building.*

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Much of the material crushed up and discarded is hardwood lumber of a quality nearly unavailable in today's construction market. "You only have to see all the really good lumber in a barracks or warehouse, much of it never painted, to know there has to be a better way to remove the buildings," said CERL researcher Tom Napier.

Several installations have tried deconstruction as the "better way," but the successes have been few and far between. Two exceptions are Fort McCoy, Wisconsin, and Fort Knox, Tennessee, where public works managers have implemented salvage programs that use competitive bidding and auctioning, respectively. Obstacles to other attempts have included lack of a uniform approach to contracting the work, an unclear cost-to-benefit ratio, or salvagers who either deserted the project or weren't able to complete removal within time constraints.

The project at Fort Campbell involves deconstructing six WWII wooden buildings: three one-story, two two-story, and one warehouse. The team will evaluate various options for dismantling the structures.

One method is to take them apart piece-by-piece. An alternative may be to cut and remove the building in sections and take it apart on the ground or in an industrial facility, according to Napier. Productivity data from each method will be documented and the University of Florida will develop a plan to reduce deconstruction time substantially over current practice.

CERL contracted with HfH to salvage the buildings. Proceeds from materials that can be sold for recycling or reuse will go toward funding new HfH family homes. HfH will have help from the AmeriCorps

National Civilian Conservation Corps (NCCC) in taking down the buildings.

AmeriCorps is a network of national service programs that engage more than 50,000 Americans each year in intensive service to meet critical needs in education, public safety, health, and the environment. NCCC is one of AmeriCorps' three programs: a 10-month, full-time residential program for men and women between the ages of 18 and 24. Ten NCCC volunteers are working on the Fort Campbell project after being fully trained in deconstruction and safety procedures.

Another issue to be addressed in the project is disposal or reuse of wood that has lead-based paint (LBP) as a coating system. The Forest Products Laboratory and CERL will explore various methods of removing the LBP cost-effectively as well as other options for recycling coated wood. These include using new types of milling and shaping machines that could create high-end construction products, such as wainscoting, and phosphate-containing paints that could be used to cover the LBP and create a more stable (and non-hazardous) form of lead.

The team will also work with USEPA to review regulatory guidance that could dictate less strict handling and disposal requirements.

The work at the Forest Products Laboratory ties in with a cooperative project between CERL and the Fort Ord Reuse Authority, Fort Ord, California. The situation is further complicated in California since the presence of LBP regulates the wood as a California hazardous waste. With some 1,400 buildings yet to be removed at the former Fort Ord, sending all of the painted wood to a hazardous waste landfill is very expensive and a huge waste of quality Douglas Fir wood just to dispose of a relatively small quantity of lead. In addition, disposal of all this wood will significantly shorten the life of the landfill.

"With thousands of WW II-era wooden buildings at Army and other DoD sites throughout California yet to be removed, an economic means to salvage the wood and reduce the disposal volume of hazardous waste is greatly needed," said CERL researcher Rich Lampo.

Using some form of deconstruction for military facilities has the potential to divert



*House built at Fort Knox from recycled deconstruction material shows beautiful woodwork salvaged from WWII barracks.*

50 to 98 percent of demolition waste to reusable material. Besides being environmentally friendly, salvaging building components can bring significant savings to the installation: at Fort Campbell, Napier estimates that deconstruction will save \$20 million over the next 20 years by avoiding land-fill expansion.

Further, crushing and reusing waste concrete for aggregate will save a projected \$500,000/year. These benefits are in addition to any return from the salvaged wood – at Fort Chaffee, Arkansas, a study showed a potential value of \$3 million for wood to be taken from 600 buildings.

The project at Fort Campbell represents an opportunity to measure performance and enhance deconstruction processes. Another expected outcome of this project is a standard program to estimate the cost-benefit ratio for individual projects. This will give installations a valuable tool in deciding among the different alternatives for building removal, including those options that fully exploit reuse and recycling.

*For more information about the Fort Campbell project, please contact Tom Napier or Stephen Cosper at CERL, 217-373-3497 or 217-398-5569, t-napier@cecer.army.mil or s-cosper@cecer.army.mil. For information on the Fort Ord project or general questions about lead-based paint construction waste, please contact Richard Lampo at 217-373-6765, r-lampo@cecer.army.mil.*

*Dana Finney is the public affairs officer at ERDC, CERL. PWD*



# Roofing—the four lines of defense

by Olan H. (Bud) Lewis

Any discussion of roofing usually includes a variety of opinions and evokes a wide range of emotions. These four lines of defense may help insure that your next roofing project performs up to expectations.

**The first line of defense is a thorough set of specifications.** Leave nothing to chance when dealing with roofing contractors. Address everything in detail from the location of the porta-john to the length, diameter and coating for screws.

Some designers are under the impression that specifications with requirements different from those of the material manufacturer will void the warranty. That is not the case. Industry experience has shown that the technical departments of material manufacturers are very cooperative with designers. Since they want to sell their product, they will either accept or help develop more stringent details to address potential problem areas. Remember the manufacturers installation details are the minimum acceptable standards.

Obtain a copy of the National Roofing Contractors Association (NRCA) Manual, 5th edition, and review the chosen roof system. Compare the NRCA requirements and details to those in the material manufacturer's technical installation guide. Where deviations occur that are of concern, contact the manufacturer and get clarification.

Roofs most often fail at terminations, penetrations, parapets and flashings, so pay particular attention to these areas. Manufacturers do not usually warrant sheet metal work. Include a requirement for the contractor to warrant all sheet metal work for 5 years.

Insure positive drainage with crickets, saddles and tapered insulation. Remember the old adage, "The devil is in the details," and be concise, detailed and explicit.

**The second line of defense is qualifying material manufacturers.** This is an

area often overlooked because we assume they are pretty much alike. Specifications typically list a roof system by a manufacturer or an "equal." Are all material manufacturers really equal? Perhaps, but only when comparing finish goods.

The fact is they are very different. Corporate culture dictates market strategy. Some have stringent inspection requirements and some do not. Some use high pressure sales tactics, while others rely on their reputation for quality. Suppliers fighting for market share may bend rules in order to sell product such as certifying contractors who lack sufficient expertise.

Installing a roof is a manufacturing process. The finished goods are brought to the site for final assembly as specified by the manufacturer and installed by a contractor approved by the manufacturer. So manufacturers are much more than commodity brokers. They highlight the quality Control in the manufacturing process. They assure us their field technicians will be on site to verify the use of all specified materials and their proper application.

Some claim superior warranties. All claim their certified contractors are skilled and experienced. The reality is that manufacturers live up to these claims in varying degrees, so research them and determine who has the best overall product and QA/QC program. Incorporate their QA/QC procedures into the specifications. Require all manufacturers who want to compete to agree in writing to provide those services. This levels the playing field, keeps manufacturers engaged and holds them accountable.

**The third line of defense is employing a knowledgeable full time inspector.** The old adage, "An ounce of prevention is worth a pound of cure," was never more true than with roofing projects. Variables such as weather, workforce and other trades on the work site can affect the quality of the installation process. The temptation constantly



Bud Lewis

exists for contractors to hurry and cut corners. After all, people are being inconvenienced or other trades are waiting.

Many problems can be covered up in the roofing process only to surface later. The greatest tool an inspector has is a camera. Taking daily photos of every phase of the installation process greatly reduces any temptation by the contractor to cut corners and almost completely eliminates arguments over what, when or how something was done. The photos make a great historical record for future reference if problems ever do occur. A full time inspector is cheap insurance to protect a long-term investment.

**The fourth line of defense is getting a good contractor.** Require the contractor to provide a Payment and Performance Bond and carry \$1,000,000 General Liability Insurance from an A.M. Best "A" rated carrier. Ask for references on three projects similar in size and scope, and then CHECK the references. Quality contractors always gravitate towards projects with demanding specifications, where material manufacturers are engaged and accountable and where an inspector keeps a watchful eye.

Implementing the first three lines of defense almost guarantees a competent contractor.

In conclusion, roofing designers must be in complete command of every facet or process and develop controls in specifications that hold all parties ►



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accountable in specific terms. Close the loopholes that allow contractors to install and material manufacturers to accept substandard work.

Often, too much reliance is placed on the issuance of a warranty. Providing a warranty does not abrogate the responsibility of the manufacturer or the contractor to provide a quality installation with structural integrity of the roof system.

For anyone with significant responsibilities for roofing projects, the Roof Consultants Institute (RCI) is a well-known international organization founded to educate and inform members on roofing related topics. They publish a monthly journal and host workshops throughout the country. They also administer very demanding examinations, which are part of an application process for becoming a Registered Roof Consultant (RRC) or Registered Roof Observer (RRO). Also consider membership in the NRCA. Involvement with the NRCA and RCI can help hone the skills and knowledge required to keep abreast of a dynamic industry.

For more information, please log on to [www.roofonline.org](http://www.roofonline.org) (NRCA) or [www.rci-online.org](http://www.rci-online.org) (RCI).

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*Olan H. (Bud) Lewis, a retired LTC (COE), is currently a contracted roof consultant for the Engineer Section of the 90th Regional Support Command, Army Reserve, in Little Rock, AR. PWD*

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**For back issues, click on publications.**

## Roofing Industry Categories

Insight into market dynamics may be extremely helpful. The Roofing Industry can be broken into three broad categories:

### A. Built-up Roofing Manufacturers (Built-up and Modified Bitumen)

This is a mature industry with no more than 7 or 8 major players. At least 5 have been in the roofing industry for over 60 years. A 20-year "No Dollar Limit" (non pro-rated) warranty is the standard in the industry. In this market, a few manufacturers may offer a warranty that appears to exceed the 20-year ND. Observe caution! Read warranties carefully. Avoid any manufacturer who berates the competition in order to sell their product. Many of the roof systems in this market segment have been performing longer than 20 years. There have been few changes in product or application in recent years.

### B. Flexible Sheet Membranes - EPDM, TPO and PVC (Ethylene Propylene Diene Monomer, Thermoplastic Olefin, and Polyvinyl Chloride)

This is a maturing industry with 12 or 13 major competitors in the market place. Problems that initially plagued this market segment have been addressed and product quality has improved. Stay with manufacturers who have been in the marketplace at least 20 years. They have systems with a proven track record for superior performance and some have very good certification programs for contractors so take advantage of this. Do not be tempted by cheap, low-end materials. The higher quality systems provide the lowest life cycle cost. With only one membrane sheet keeping water out, zero defects in seaming is critical. Major manufacturers back their warranties.

### C. Standing Seam Metal Roofing (SSMR).

1. Structural SSMR. This system is for low-sloped applications and is typically associated with metal building construction.
2. Architectural (non-structural) SSMR. This system requires greater slope, secondary waterproofing membrane, solid decking and attachment using hidden cleats, fasteners or clips.

SSMR is often chosen because of its esthetic appeal. The SSMR industry is struggling with problems. If one looks at the roofing industry in its entirety, the highest percentage of legal actions stem from SSMR installations.

There are more than a hundred metal manufacturers currently vying for market share. The most pressing problem is the lack of qualified installers. It is difficult to find skilled sheet metal mechanics in some areas of the country.

Also, many manufacturers have been in business less than 10 years. Some have no real technical departments and many have developed simplistic flashing details that maximize the use of sealant tape or caulk to maintain a watertight condition. These systems will remain watertight only as long as the caulk lasts.

Further, real contractor certification requirements are dreadfully lacking. Unlike the more mature market segments, this market has been unable to develop, assimilate or enforce industry standards of acceptable practices and procedures. Many warranties do not cover failure due to improper installation (for obvious reasons). Stringent, on-site full time inspection is the best assurance of getting it right the first time.

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**PWD**



## Army hosts first MAXIMO/FEMs Users' Group Meeting

by Brigid O'Connor

Over the past two years, many installations have been implementing Commercial Maintenance Management Systems (CMMS) for both contracted and in-house operated environments. The most prevalent CMMS is MAXIMO. Installations as well as contractors say that the CMMS are more state-of-the-art than the legacy government system, IFS, and that the CMMS are better aligned with their current business requirements and will help them manage the installation infrastructure more effectively and more efficiently.

The installations are correct. The work estimating and PM programs in IFS are antiquated but for a number of reasons, the Army has not decided how or when to replace these systems.

As these new CMMS are being implemented, installations are developing their own interfaces between the CMMS and IFS. Since these are independent efforts, many different interfaces have resulted. Although installations are trying, these interfaces are not necessarily developed and tested in accordance with approved technical guidelines or using IFS business rules to ensure data integrity. This is extremely important considering that IFS has been declared a financial feeder system.

In an effort to support these installations and to ensure an effective, controlled method of interfacing data between IFS and CMMS, ACSIM has suggested that installation MAXIMO users meet and identify a common set of data exchange requirements so one interface versus separate interfaces for each installation could be developed. The meeting would also offer an opportunity to share lessons learned.

The first MAXIMO/FEMs Users' Group Meeting was held on Monday, 15 April 2002, at the Information Integration and Analysis Center in Alexandria, Virginia. Aberdeen Proving Ground is chairing the MAXIMO/FEMs users' group. The objective was to bring together installations using MAXIMO and share lessons learned, best practices, and determine if there were com-

mon requirements to interface MAXIMO with IFS.

The information collected in this endeavor will be used as a basis for defining common specifications and developing an interface with IFS and MAXIMO and other Computerized Maintenance Management Systems (CMMS).

Participants shared how installations are using MAXIMO in different environments and some have developed very good solutions. The meeting focused on sharing information and developing solutions to commonly shared problems.

It was evident from the presentations that there were good lessons to be shared among the group. It was also evident that there were duplicate efforts being performed by various installations. Even though the goals and objectives are the same, the paths taken by the installations are very diverse. Installations are taking different approaches, using different technologies, different contracts and different standards to do the same things.

Most of the installations represented are using MAXIMO mainly as a facilities maintenance tool and have interfaces with IFS. Each of the installations is using it differently; some for all shop work; some for Preventative Maintenance, some for equipment and others for varying combinations, all of which require different interfaces.

The Army Materiel Command sites are using it differently because they are Army Working Capital Fund sites and interface with the Defense Property Accountability System and the AMC Supply System. AMC refers to the MAXIMO System as FEMS; they use it primarily for personal property management such as vehicle fleet and DPW equipment. AMC's implementation of MAXIMO is standard because implementation is centrally managed and supported.

TRADOC and FORSCOM installations both took different approaches to implementing MAXIMO; therefore, they have different interface requirements.

The meeting resulted in the following recommendations:

- Develop mission and protocols for group.
- Develop user group website to share presentations, lessons learned, etc.
- Develop CFO compliant procedures.
- Develop starting point for integration policy recommendations.
- Develop mobile Maximo (Hand-held) guidelines.
- Develop recommended Army guidelines for business process-APG.

What became painfully apparent during the presentations was the lack of a single oversight to provide policy and guidance to the installations concerning independent implementation of CMMS and other systems. Executing an enterprise-wide integration approach requires development of a top-down strategy to govern bottom-up project implementations. Without a governance process in place, each installation can select, deploy and operate multiple applications as is now happening. Huge amounts of money are being spent for various systems, all of which require interfaces to be developed. The lack of supporting standards for system use is costing the Army millions of dollars.

The next meeting is planned for the August/September timeframe and will be held at Fort Monmouth, New Jersey. The agenda will place emphasis on an attempt to standardize interfaces to legacy systems. Please contact Roy Joseph at Roy.Joseph@usag.apg.army.mil, (410) 278-6699, to be added to the membership list.

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*Brigid O'Connor works in the Program Integration Office, Plans and Operations Division, ACSIM. PWD*



# PAX system now centrally funded

by Mike Rice and Bill Crambo

The check is no longer in the mail. It has arrived and now that money is hard at work for you. Programming Administration and Execution (PAX) central funding has arrived with applause from the user community. The Assistant Chief of Staff for Installation Management (ACSIM) has been working with the PAX team for several years to achieve central funding for the PAX Information Technology (IT) system.

Success is measured in many ways. If the travel speed of good news is any measure, we've hit pay-dirt on the stars with this one. E-mail electrons of praise were bouncing around before notification went out to the user community. This is not surprising given the nearly universal unpopularity of this particular fee-for-service billing.

Also not surprising was the strong desire of the ACSIM staff to achieve central funding for all Army users of the PAX system for the second half of this Fiscal Year. The question was put to the PAX Team, "Does that mean PAX is free, and I don't have to pay for it anymore?" No, it is not free. The cost is funded centrally by the ACSIM for only Army users. Yes, that means Army PAX users do not provide funds for the second half of FY02. Future years are expected to be centrally funded, too.

This is a major change for the PAX system. It is said that change doesn't come easy, or that it comes at a price. This change wasn't easy, and rather than at a price, it comes with a bonus. Not only do Army PAX users not have to send funds to use the DD Form 1391 Processor and CAPCES, the stress of the paperwork is eliminated, too.

PAX billing had always been a time consuming, stress-building, non-friendly process for the PAX user community and for the PAX team. Fee-for-service/actual-usage-billing arguably had its time and place. However, with the PAX system virtually required, the billing process had been a real world penalty for those who simply tried to do a good job. For some people, it was simply easier to avoid doing the work.

Recognizing this, and unable to achieve centralized funding immediately, the PAX team was able to institute flat-rate priced semi-annual billing at the beginning of FY 2000. That alone was a major departure from the actual-usage monthly billing MIPR process, which had been in place for 20 plus years.

In today's world, computer systems compete for business, cost emphasis has

shifted, and user expectations have grown. Central funding, just like the central processing center, central web-based interface, central contracting and central management for the PAX system is a win - win situation for the PAX user community as well as the PAX team.

By 31 July, the PAX team will return all MIPRs submitted by Army users which are for the second half of FY02 activity. This will enable users to apply the funds elsewhere. The fine print states that PAX funding requirements for FY03 - FY09 will be subject to availability of funds. PAX flat-rate billing will remain for non-Army PAX users.

Along with other major achievements within the PAX environment, the PAX team considers central funding a vital necessity and will continue to work hard to keep the system centrally funded. The PAX team is always available to answer questions from any user.

*Questions regarding billing or MIPRs should be directed to Harold Miles at (202) 761-8909 (DSN 763) or (301) 249-3620.*

*Mike Rice and Bill Crambo work in Military Programs' Installation Support Policy Branch. PWD*

# Are you getting your FairShare?

by Paul DesRoches

How do I know whether I'm getting my FairShare? Just log on to [www.rkeng.com](http://www.rkeng.com) and follow the directions. You won't get your FairShare right away, but the next day is probably good enough.

## FairShare by the numbers

FairShare, is a planning, programming, and budgeting tool for the Army. It is was

developed over a ten-year period to project SRM and BASOPS(-) requirements by MACOM, by installation, by MDEP, by Program Element (PE). The tool is virtually free to all planners, programmers, and budgeters at all levels of management. We hope the following "by the number" approach to the model will explain why it is integral to ensuring that you get your FairShare of the budget.

## 1. What does FairShare do?

FairShare was built for you. It is an Army tool. It produces Base Operations Support requirements, by installation, by Management Decision Evaluation Package (MDEP), and by Program Element over the Program Objective Memorandum (POM) period. ➤



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#### **FairShare:**

- Automatically distributes funding (up to the limits of the Program Budget Guidance - five years worth). MACOMs or the IMA can create fund distributions to all of their installations based upon their real property in seconds. Installations do various work elements at the push of a button.
- Allows for insertion of special projects and programs, immediately funds them "off the top," and makes the distribution to installations. Installations can do the same at their level.
- Is disbursed to all levels. Installations, MACOMs, IMA and TIM regions, while each level can see/work with their own requirements. Funding can go directly from IMA/ACSIM to the installations.
- Allows for impact assessments or outcome based budgeting through an interconnection with the Facilities Degradation Module. You can "see" the expected results of your investments in terms of quality changes in the Installation Status Report (ISR). This is a very persuasive funding tool.
- Provides an optimization tool that allows the user (at all levels) to refocus funding to optimize investments in those areas that will have the greatest impact on ISR quality levels, if desired.
- Is interactive and web-based. That is, it allows the user to make authorized changes to the data from their own PC.
- Has a well-developed training program. Comprehensive training is provided for all individual installation feeder databases and the FairShare model. Students work on their installation's (MACOMs, Regions, etc.) data, live.

#### **2. How does FairShare work?**

**Sustainment** - The model calculates Operations and Maintenance, Army (OMA) sustainment funding requirements based upon installation real property records, Real Property Planning System (RPLANS) allowances, Army Stationing and Installations Plan (ASIP) installation loads,

Cost and Economic Analysis Center cost factors for FY02 and FY03 and DoD cost factors for FY04 through FY07. It also includes increases to your sustainment due to Military Construction, Army (MCA) projects two years after they are listed for execution in the Future Year Development Plan (FYDP). Requirements are inflated and adjusted for geography using Corps of Engineers published factors. Minor construction costs are included too. It automatically contains all of the IMA/ACSIM Business Rules for programming and fund distribution.

**Municipal Services and Unaccompanied Personnel Housing Furnishings** - Currently, these requirements are calculated using a four-year moving average of obligations in the various accounts. The model will be shifting to either a linear regression of obligations or continuation of the four-year moving average whichever provides the most accurate prediction in FY03.

**Purchased Utilities** - The model currently uses a four-year moving average of obligations to predict future utility costs. It will switch to either linear regression, or, if approved as an Army wide enhancement to FairShare, to predictions based upon consumption and commodity costs from the Pacific National Northwest Laboratories (PNNL), Department of Defense's acknowledged energy experts.

#### **3. What does FairShare do for you?**

##### **FairShare:**

- Builds POM requirements (in the areas described above) in a day. Takes the majority of the burden off of the MACOM and the IMA/TIM Regions. Can distribute funds for the whole Army in seconds. Simply load up special programs and the PBG and push the button. Dollars are spread fairly throughout the command/region. Each installation gets their fair share of the funding. All installations are funded at the same percentage of their requirements.
- Allows installations to "see" 5 years of funding for their installations all at one time. Can plan and execute longer-term programs. Can see changes over time.

- Ensures that municipal services, utilities, and UPH furnishings are fully funded. These are mandatory costs.
- Creates interaction between all levels of command and management. Creates one number for requirements. Brings us all together.
- Allows for investment optimization if desired.
- Provides a very powerful tool for defending investment requests and decisions.
- Links with ISR for outcome based investment decisions. Now you know what they know.
- Brings DPWs and RMs together with Regions/MACOMs/ACSIM/IMA.

#### **4. Where is FairShare going?**

The model is now web based for all of the Army and will encompass all of Base Support by integrating TRADOC's BOS-FM in FY03. It will include the optimizer and use the best predictors available in FY03, while emulating and expanding DOD's funding model in FY03 (for FY04 out).

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*Paul DesRoches is the FORSCOM Engineer Business Team Leader. **PWD***

## **Showcase your installation**

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# Centralizing production and distribution of web services

by Jeffery T. Hooghouse

The DA Facility Standards Program Portal ([www.projnet.org](http://www.projnet.org)) is a web site that allows authorized Centers of Standardization personnel to manage content in their areas of expertise without having to allocate resources to managing server hardware or software. It is a central location where all Corps personnel and authorized designers, customers, and users can access and review needed information.

Centralizing the production and distribution of web services for the DA Facility Standardization program provides several key advantages. First, access to potentially sensitive documents may be limited to the Corps and its authorized business partners.

Second, all users of this information will have a central place to go to find information – on a website that most users will or already have access (i.e. [projnet.org](http://projnet.org)).

Third, information from all sites may be updated, managed, and reviewed without physical access to servers across the Corps.

Finally, there is no longer a need for each Center to provide dedicated personnel

to perform web page design and production. Rather than manage individual web pages, content managers provide information into standard templates. Content becomes information stored in a database that is displayed upon request to individual users.

The portal uses generic Portal-in-a-Box software provided with the ProjNet suite of applications. The organization of information in the Portal-in-a-Box software provides for the exchange of:

- Standard documents and points of contact for application of those documents.
- Lessons learned related to the use of specific standards.
- Links to related sites.

Content managers may upload documents or use page templates to create online materials.

The equipment that runs the DA Facility Standardization Portal is located in the offices of the Engineering Research and Development Center (Champaign, Illinois).

It is a 24-hour guarded, access-controlled facility. GS personnel and cleared contractors are the only persons authorized to access and administer this equipment and related software.

ProjNet Help Desk ([staff@rcsupport.com](mailto:staff@rcsupport.com) or 217-367-6732) provides training and technical support for content managers. A request for access form will be added to the ProjNet homepage allowing specific content managers to authorize individual logins through e-mail to the Help Desk.

Access to the site has been available since FY01 through <http://www.projnet.org>. Final touches on the lessons learned component will be completed by August 2002.

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Jeffery T. Hooghouse works in the Engineering and Construction Division at Corps Headquarters. **PWD**

# ACSIM updates DPW Automation Pamphlet

by Brigid O'Connor

The Program Integration Office (PIO) of Plans and Operations Directorate, Assistant Chief of Staff for Installation Management (ACSIM) recently updated the DPW Automation Pamphlet. The purpose of this publication is to inform the DPW community, and the rest of the Army, of current and planned automation initiatives, which affect the DPW. Included in the pamphlet are systems for which PIO is the proponent, and others which may impact the DPW, but have proponents located in other parts of the ACSIM or U.S. Army Corps of Engineers.

The last edition of the pamphlet was published by the Installation Support Center in 1999. Since that time, many systems have undergone major changes—some are no longer being supported and there are many new additions.

The PIO vision is to provide timely access to authorized users, on a global basis, to consistent, integrated ACSIM data using the best business solutions available in a cost effective manner to support ACSIM's decision-making and operations. The DPW Automation Pamphlet is an excellent reference source for DPWs. It gives an

overview of each system, describes system interfaces, and gives current status, plans and milestones as well as points of contact. Engineering management systems (EMSs) and environmental systems are included in this addition with information on implementation.

Copies of the pamphlet may be downloaded from the ACSIM homepage at <http://www.hqda.army.mil/acsimweb/>.

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**PWD**



# HIFLD spurs GIS data integration

by Fredrik Wiant

One of the immediate outcomes of the 9-11 Disaster was the realization that one, we had a lot of GIS data in the country and two, we could not share it very well "in real time."

In the immediate aftermath, you may have seen stories how Corps employees worked with New York City agencies building GIS to support the recovery effort. What you heard less about was the immediate efforts of military and security planners to get everyone on the "same sheet of music," both in analyzing potential vulnerabilities and planning contingency (and actual) responses.

All of this led the Homeland Security Headquarters of US Joint Forces Command (JFCOM HLS) to pull together the Homeland Infrastructure Foundation Level Database Working Group, established to develop a National GIS foundation baseline. Pronounced "Hi-Field," the working group is a coalition of federal organizations and support contractors concerned with Homeland Security, Critical Infrastructure Protection, and Crisis and Consequence Management.

There are currently over three dozen major participating organizations. The working group is led by the JFCOM HLS, the Joint Program Office for Special Technology Countermeasures, the Joint Task Force for Civil Support and NIMA's North America and Homeland Security Division.

The working group's goal is to develop the foundation baseline for value adding with imagery, maps, overlays and databases that support relevant views of the common foundation to satisfy each organization's requirement for Situational Awareness, Focused Assessments and Specific Crisis Response. Examples include Planning, Training, Emergency Response, Pre-emption & Protection, Recovery, Critical Infrastructure Protection Analysis, Facility Management and Force Protection.

As you might imagine, the working

group is uncovering a tremendous amount of data that could potentially be used for installation planning. HIFLD has also taken on the challenge of developing a DOD GIS security policy. HIFLD, like installations, needs to be able to share data with other government agencies, as well as the private sector. At the same time, we don't want to hand our opponents "a target list." The working group has become a focal point for these issues.

HIFLD has also highlighted the importance of documenting your data with good metadata. In a crisis, installation data can be a critical asset. When operational planners want to use installation data, time is usually very critical. There is no time to spend in long phone calls to find out who developed the data, how long ago, and in what projection – especially tough if the only person who knows has since moved on. Most installations have given metadata a

very low priority. The Army installation community needs to fix this as soon as possible.

The metadata requirement was restated in the 16 October 2001 HQDA Memorandum on Data Standards for CADD and GIS (along with equally important requirement to use the Spatial Data Standards). Commanders and managers need to ask themselves: "If a Joint Task Force Commander asks for my installation data, are we ready?"

*For questions about the HIFLD Working Group, metadata, standards and related issues, please contact Rik Wiant at (202) 761- 5788, e-mail: fredrik.w.wiant@usace.army.mil*

*Fredrick Wiant is an installation planning specialist in the Installation Support Division's Planning Branch. **PWD***

## Coming Soon

Look for the Sep/Oct  
issue of the  
**Public Works Digest**  
on Energy Management

Deadline for call for articles: August 23, 2002



# IFS INTERIM CHANGE PACKAGE (ICP) 14-01

by Brenda Spain

ICP 14-01 is scheduled for release in mid July. It incorporates data elements to track Sustainment, Restoration/Modernization (S/RM) for Department of Defense Instruction (DODI) 4165.14 "Inventory of Military Real Property." Also included are changes to several IFS broadcast tables. A policy letter explaining the changes will accompany ICP 14-01 when it is distributed to the field.

Changes to DODI inventory **must** be fielded and loaded before the 30 September 2002 data pull (HQIFS); therefore, it is imperative that installation SA/DBAs load ICP 14-01 before the HQIFS pull date.

SCP 14-00 must be loaded before ICP 14-01 can be loaded.

***As a special note, the postal zip code of the installation's primary mailing address (e.g., Garrison headquarters***

***(CONUS) or the military post office designator for the overseas installation; e.g., Garrison headquarters) for each installation in the database should be accessible when loading this change package. Example: 22315-5262 or APO AE 12345-0101 or APO AP 96205-0009. This is a mandatory entry and the VDD will pause for installation zip code input.***

## 1. DODI changes include the following additions:

- a. **"RPF Assignment" Screen.** *User Organization Code, Sustainment Organization Code and Sustainment Fund Code* fields have been added at the Assignment level.

Integrated Facilities System - [ASG01]

File Edit IFS Action Navigation Query IFS Queries System Mgt Window Help

11-JUN-2002 RPF ASSIGNMENT SCREEN ID: ASG01

Installation Number: 08055 Facility Number: 00006

Design Use: 75011 COURT AREA Current Use: 75011 COURT AREA

UIC: UNASSG CITY OF AURORA UIC Ext: CA PARKS & RECREATION

Assigned Unit Id: COA CITY OF AURORA

Type Assignment: ☐ Complex Code: P Planned Disposition Code: N

Unit of Measure 1: Unit of Measure 2: EA

RPF Use Area Total: 0.00 RPF Use Other Measure Total: 1.0

Gross Area Assigned: Gross Area Available: 0.00 Assigned Other Measure Total: 1.0

RPF Use Net Area Total: 0.00 Other Measure Total Available: 0.0

Assigned Net Floor Space: Date Assignment Start: Gross Area Not Used:

Remarks:

User Organization: 53 TRICARE MANAGEMENT ACTIVITY

Sustainment Organization: 53 TRICARE MANAGEMENT ACTIVITY

Fund: 02 BASE REALIGNMENT AND CLOSURE

Grant Instrument No: Street Address:

Grants/Leases Custodian Save Delete Enter Qry Prv Scrn A

Clear All Close Exec Qry Nxt Scrn V

FACILITY PLANNED FOR DISPOSAL

Record 5/7 <OSC> <DBG>

- b. **"Real Property Facility" Screen.** *Replacement Organization Code and Replacement Fund Code* have been added at the Real Property Facility level.
- c. **"Installation Data – Part 1" Screen.** *Installation Zip Code and Region Code* have been added at the Installation level. ➤



- d. **“Reports.”** A Sustainment, Replacement, and User Organization/Fund Report has been added to the Real Property Reports menu. During conversion, the system will populate the five new codes based on existing data in IFS. This report will contain the results of data conversion for facilities that are reportable, or under construction.

The report is divided into three main sections:

Section I – Sustainment, Replacement, and User Organization/Fund Report

Section II - Summary Statistics by Sustainment Organization

Section III – Summary Statistics by Replacement Organization

- e. Three new database tables:

- (1) ORG - a broadcast domain table used to validate entry of Sustainment Org Code, User Org Code and Replacement Org Code.
- (2) OSD\_FUND - a broadcast domain table used to validate the entry of Sustainment Fund Code and Replacement

Fund Code.

- (3) REGION – a broadcast domain table which will provide a list of Valid Regions to be entered for each Installation in support of TIM (Transformation of Installation Management). Initially this table may only contain a value of “Z” (unknown) until codes are finalized.

## 2. **Other table changes, excluding DODI, include:**

- a. **Status Kind Operator Code** – the following codes have been added:

Code	Description
K	Semiactive, Industrial (Govt operated)
P	Semiactive, Industrial (Contractor operated)

- b. **Ownership Code** - the following codes have been added:

Code	Description
D	Leaseback BRAC.
E	Leaseback Non-BRAC
G	RCI/CVI

- c. **Facility Acquisition Code** – the following code has been added:

Code	Description
Y	State purchased (National Guard) ➤



# Sign up for the Engineering Automation Research Update

The Engineering Automation Research Update (The "EAR"), at <http://www.cecer.army.mil/EARUpdate> is a service from the U.S. Army Engineer Research and Development Center that is offered semi-annually. Its purpose is to keep the U.S. Army Corps of Engineers community informed about ongoing research to improve the facility delivery process. Check it out if you are involved with planning, designing, and building military and federal facilities.

EAR updates will be distributed free on a subscription basis. For new subscribers, please go to the EAR web site and follow the directions to subscribe: <http://www.cecer.army.mil/EARUpdate/ToSsubscribe.cfm> The EAR welcomes correspondence and contributed articles.

## Highlights of the current issue include:

- "Building Composer: Criteria Based Facility Design" by Beth Brucker
- "The Greening of Fort Bragg: Creative Reuse at New Construction Site" by Linda Pfau
- "Specifying Paint" by Al Beitelman
- "Specifying Environmental Friendly Paint" by Eric D. Johnson
- "Fort Hood's Buildings are Turning Green (Straw Bale Building) by Randy Doyle and Jeff Salmon
- "Fort Future: Modeling Tomorrow's Army Installations" by Dr Michael P. Case
- "Satisfying Sustainability and Historic Building Mandates" by Julie Webster
- "My boss told me to build it GREEN...what do I do now?" by Eric D. Johnson

- "Update on the IAI" by Dr Francois Grobler
- "Searching for Installation Sustainability in an Encroaching and Transforming World" by David S. Eady, Rochie E. Tschirhart, Jorge A. Vanegas, PH.D., and Ronald D. Webster, P.E.

There are also buttons linking to Current Events, AEC Technology Links and TRs (Technical Reports). We look forward to seeing you on the Web!  
<http://www.cecer.army.mil/EARUpdate>

POCs are Annette Stumpf, Editor; Engineering Automation Research Update, e-mail: [a-stumpf@cecer.army.mil](mailto:a-stumpf@cecer.army.mil); and Bruce Goettel, e-mail: [b-goettel@cecer.army.mil](mailto:b-goettel@cecer.army.mil) **PWD**

(continued from previous page)

## d. Function Code – the following code has been added:

<u>Code</u>	<u>Description</u>
O (Alpha)	Other than Army Installations

## e. Outgrant Authority Type Code — the following codes have been added:

<u>Code</u>	<u>Description</u>	<u>Payment Type Indicator</u>
F	Armament Retooling & Manufacturing Support Initiative (ARMS)	0 (Optional)
G	Energy Savings Performance Cont (ESPC)	0 (Optional)
H	Arsenal Support Program Init (ASPI)	0 (Optional)
P	Other Than PL2667	0 (Optional)

The following Payment Type Indicator has been set to existing codes.

<u>Code</u>	<u>Description</u>	<u>Payment Type Indicator</u>
A	Agricultural/Grazing PL2667	0 (Optional)
O	Other PL2667	0 (Optional)
V	(PPV) PL2667 CFSC	0 (Optional)

f. "Real Property Facility Use" Screen. Facility Type 'I' (Improvement) has been eliminated. Screen now reads "Facility Type (B, L, S, U):"

## 3. JOB COST ACCOUNTING Modifications:

"Cost Transfer Voucher Residual" Screen (SCREEN ID: CTV02): The CIVILIAN LABOR HOUR fields will only allow whole hours.

POCs are Peggy Brennan, (804) 734-2727; and Brenda Spain, (804) 734-2012.

Brenda Spain supports the IFS Systems Team in Real Property Management at Fort Lee, VA.



## New guidance addresses Army's pollution prevention goals

by Eric Haukdal

In its ongoing fight against pollution, the Army's Office of the Director of Environmental Programs (ODEP) has recently added another weapon to its arsenal. By developing and issuing comprehensive pollution prevention (P2) plan guidance, the ODEP has provided MACOMS and installations a ready reference they can use to:

- Outline the structure of their P2 programs.
- Identify and evaluate pollution prevention initiatives.
- Develop a strategy for funding and implementing those initiatives.

This P2 plan guidance came on the heels of executive order 13148 "Greening the Government through Environmental

Leadership" and is focused on addressing the P2 goals of the entire "Greening of the Government" executive order series (13101, 13123, 13148, and 13149).

In addition to addressing the overall environmental goals of the administration, the guidance also includes sections that will help organize installation efforts to meet specific environmental metrics set by the DoD. These metrics, known as the "Measures of Merit," are still in draft form and the DoD expects to finalize them by early 2002. By anticipating these new measures of merit and proactively including them in the P2 plan guidance, installations will be prepared to hit the ground running once the DoD issues the final version.

Another proactive element that sets this guidance apart from past P2 efforts is

the section devoted to the concept of "Compliance Through P2." Under this concept, the P2 plan guidance addresses how to identify both physical sites that are subject to environmental regulation as well as specific thresholds that, once crossed, trigger a requirement to comply with an environmental regulation. By identifying such areas, installations can then target them with pollution prevention initiatives. The end result is that the installation will have ensured compliance by completely eliminating the requirement to comply.

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*Eric Haukdal is on the ODEP Pollution Prevention Team at the Office of the Director of Environmental Programs. PWD*

## San Francisco District liaison valuable asset to East Palo Alto

by Cindy Fergus and Debra O'Leary

The US Army Corps of Engineers provides engineering, environmental, construction management and related services to federal and non-federal agencies through its Interagency and Intergovernmental Support Program. Under this program, the San Francisco District has temporarily assigned Debra O'Leary, project manager in the District's Regulatory Branch, to the City of East Palo Alto to assist with its brownfields redevelopment.

The Environmental Protection Agency (EPA) has designated East Palo Alto as one of its Brownfields Showcase Communities, enabling East Palo Alto to leverage federal assistance.

East Palo Alto is a small city of 33,000 people living on 2.5 square miles. The city is trying to revitalize its community by clean-

ing up and redeveloping its brownfield areas. These are abandoned, idled or under-used industrial or commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination.

East Palo Alto is seeking continued assistance from the Corps in assessing and cleaning up environmental contamination. In addition, East Palo Alto needs help with the construction of drainage, sewage, reliable water systems and other infrastructure improvements and protection and restoration of baylands. The San Francisco District provides valuable assistance to East Palo Alto and can provide future assistance to the city as it struggles to become a safer place to live and work.



*Debra O'Leary overlooking San Fransisquito Creek.*

*POC is Cindy Fergus, Acting PAO, San Francisco District, (415) 977-8659, e-mail: cindy.a.fergus@spd02.usace.army.mil*

*Cindy Fergus is the acting PAO, San Francisco District, and Debra O'Leary is the project manager, Regulatory Branch, San Fransisco District. PWD*



# Monitoring the changing face of environmental regulations

by Anthony Maranto and Jill Kautz

Like all federal and private sector organizations, the U.S. Army is obliged to comply with all applicable environmental laws and regulations, to include future legislative and regulatory requirements. It is in the inherent interest of each branch of the military to ensure that new environmental requirements are reasonable, based on sound science, and don't inadvertently impact military missions through unintended consequences.

To this end, each service has developed its own mechanism for the analysis of future legislative and regulatory actions. In the Army, these actions are tracked, reviewed, and analyzed through the Environmental Legislative and Regulatory Analysis and Monitoring Program (EL/RAMP), managed by the U.S. Army Environmental Center (USAEC).

Established by The Army in 1996, EL/RAMP represents the unique technical and operational aspects associated with military operations to the developers of environmental requirements. It also serves as The Army's early warning system for new environmental requirements and helps position the service to develop effective compliance strategies in a timely manner.

EL/RAMP is focused on informing Army leadership of new environmental requirements at their point of conception. As new environmental requirements that may potentially impact The Army or its operations are developed, EL/RAMP produces impact analyses, information papers, and compliance scenarios to assess how the service should position itself to adequately address new legal or regulatory mandates.

Additionally, in those instances where the regulatory agency proposals are believed to be unreasonably stringent or without sufficient technical basis, cost prohibitive or would adversely impact on Army operations, efforts are made to prepare statements, comments or position papers

and, in some instances, testimony for submittal or presentation to regulatory agencies or legislative bodies at the state, local or federal level. These actions are taken in an effort to educate regulatory agencies and legislators on the potential adverse impacts of the proposals on the Army.

The early identification of new or changing environmental requirements is a key step in the proper and timely resourcing of funds necessary to address shifting compliance requirements. By identifying operations or installations that will be most effected by proposed environmental requirements, the Army is able to properly develop funding requests through the six-year Planning, Programming, Budgeting and Execution System (PPBES) cycle.

The lowering of allowable arsenic levels in drinking water, which was part of the 1996 Safe Drinking Water Act amendment, was a classic success story for EL/RAMP. USAEC began tracking this pending regulation at the inception of the EPA proposal. When new standards were formally proposed in June 2000, the Army was able to actively assist in developing comments, cost estimates, and impact assessments for the rule, through the DOD Safe Drinking Water Act Steering Committee.

EL/RAMP analyses supported numerous analytical studies done by USAEC, which indicated that total capital costs for treatment technologies associated with the arsenic rule would approach \$36 million, with an additional annual cost of approximately \$5 million. Through proactive planning, the five installations most impacted by the rule and their commands were informed in time to allow them to adequately program for these additional projected expenses, well in advance of the compliance date.

Execution of EL/RAMP is a coordinated process accomplished with input and support from a variety of organizations including the Office of the Director of

Environmental Programs, the Army Environmental Policy Institute, major Army commands, the Center for Health Promotion and Preventative Medicine, the U.S. Army Corps of Engineers, and other military services. Additionally, state legislative and regulatory activities are monitored through USAEC's Regional Environmental Offices (REOs).

Recent EL/RAMP analyses focusing on regulatory changes that may impact the public works community include the following:

- The Stage 2 Microbial and Disinfection Byproducts Federal Advisory Committee Agreement in Principle. This regulation, along with a Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) that will be promulgated simultaneously, is intended to expand existing public health protections and address concerns about risk trade-offs between pathogens and disinfection byproducts. It could affect all public water systems that add a disinfectant to drinking water during any part of the treatment process, and is considered to have a major impact on the Army and its resourcing.
- Phase I of the Standards for Hazardous Air Pollutants for Hazardous Waste Combustors: This regulation promulgates standards to control emissions of hazardous air pollutants from incinerators, cement kilns and lightweight aggregate kilns that burn hazardous wastes. It significantly impacts 15 demilitarization furnaces at 13 Army installations. USAEC is currently developing guidance on this regulation.
- The Implementation Rule for 8-Hour Ozone National Ambient Air Quality Standard (NAAQS): This regulation would provide specific requirements for state and local air pollution ►



# Fort Drum's Cultural Resources Program provides hands-on experience for students

by Karen J. Freeman

For the second year, Fort Drum's Cultural Resources Program hosted a field trip of archeology students from Loyola High School, a private preparatory school in Montreal, Canada.

Typically, an archeology field trip to Fort Drum includes tours of the archeology lab, curation facility, and one or more archeology sites. Techniques such as how sites are located, mapping, excavation, artifact recovery and analysis are also discussed. For Loyola High School students, however, this is a hands-on, working experience in archeology where they are able to employ some of the techniques they have learned in the classroom.

Thirty-eight students spent May 15 surveying land and digging shovel test pits in two training areas. Assisting them were several members of Fort Drum's archeological field team and Dr. Laurie Rush, manager of Fort Drum's Cultural Resources Program, Directorate of Public Works.

"The archeology course at Loyola is offered as a two-year option to Secondary 3 and 4 students, aged 14-16 years old," explained Francis Scardera, teacher and head of the Arts and Humanities Department at Loyola. Last year, several teams discovered shards of prehistoric pottery and one team found an arrowhead — one of only two that have been discovered in more than 8 years of archeology on Fort Drum.

"The best part of this field trip is the hands-on experience," said Scardera. "The ratio of students to archeologists is 3 to 1."

Hosting field trips such as this one benefits Fort Drum as well. "The more opportunities we have to teach about cultural resources and the importance of wisely managing training land, the stronger our program becomes," said Dr. Rush. "Teaching reinforces our own knowledge and helps to develop the skills of our crew."



Students dig shovel test pits in search of prehistoric artifacts and materials at Fort Drum.

Since 1999, Fort Drum has hosted numerous field trips from local schools, museums, civic organizations and affiliated colleges such as Jefferson Community College, State University of New York at Potsdam, St. Lawrence University, Colgate University and Syracuse University.

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*Karen J. Freeman is a Public Relations Specialist in the Environmental Division, Public Works, Fort Drum, NY. **PWD***

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control agencies to prepare state implementation plans (SIPs) under the 8-hour national ambient air quality standard for ozone, published by EPA on July 18, 1997. It will likely cause short-term disruption at Group I/II installations located in ozone non-attainment areas due to the possible need to install pollution controls (for large combustion sources); reduce VOC emissions through emission controls or alternate chemical use; and increase compliance monitoring, record keeping and reporting. Under a worst-case scenario, installations would have to install pollution

controls. Estimated compliance costs would be \$10,000 per installation for a total estimated cost of \$5 million.

The challenge for efficient implementation of EL/RAMP is to provide sustained monitoring and comprehensive analysis focusing on those proposed requirements where Army participation in the development process can reduce or eliminate potential negative impacts, reduce environmental compliance costs or where early involvement can help the Army to position itself to meet new requirements in a proactive and effective manner.

Educating regulatory agencies on the particular impacts their regulations may have on Army operations through a variety of means, particularly through participa-

tion in the rulemaking or legislative process, is an integral part of EL/RAMP work.

*For more information, please visit the EL/RAMP Web site at: <http://aec.army.mil/usaec/elramp/index.html> or contact the POC, Pamela Klinger at (410) 436-1220.*

*Anthony Maranto and Jill Kautz are consultants with Booz Allen Hamilton, Inc. and currently provide support to the U.S. Army Environmental Center's Compliance and Pollution Prevention Branch at Aberdeen Proving Ground, MD.*

**PWD**



# Greening the greens at Army golf courses

by Brian Feeney

Superintendents at U.S. Army installation golf courses have long strived for a golf course that is not only environmentally friendly, but less expensive to maintain. Together with environmentalists and golf course owners, they saw a common interest in reducing the environmental impacts of golf courses and decided to develop a set of national principles to provide guidance on golf course planning, siting, construction, operation and maintenance.

These principles were adopted by the U.S. Golf Association (USGA), which established a Green Section to share conservation and pollution prevention techniques with its members. However, many of these same principles had already been adopted by the Army's installations in order to comply with the National Environmental Policy Act (NEPA), U.S. Army policy on sustainable design and development, and as part of the Army's Chesapeake Bay Program.

These principles include integrated pest management programs, water conservation techniques, pollution prevention programs, use of native vegetation and establishment of buffer areas around bodies of water.

In the Chesapeake Bay watershed, the golf course at Fort Belvoir, Virginia, for example, instituted an integrated pest management program that has enabled it to reduce fertilizer, pesticide and herbicide use by an average of 30 percent at its 36-hole golf course. The installation also installed a runoff retention system that allows for the reuse of water applied to the greens, and has a new state-of-the-art maintenance facility that recycles its wash rack rinsewater. Fort Belvoir's course was designed around a 10-acre wetland that serves as habitat for the state-listed endangered wood turtle.

The principles also include implementing erosion management plans and establishing no-mow areas.



*Wildlife habitat created by establishing a no-mow zone surrounding a water feature at Aberdeen Proving Ground's Exton Golf Course.*

At Fort Meade, Maryland, also in the Chesapeake Bay watershed, not only have golf course maintenance staff implemented an integrated pest management plan that has reduced pesticide use by over 50 percent, but they are also working with the installation's DPW to survey a creek that runs near the golf course for erosion and to establish a buffer area. Installation personnel have already planted native trees along the creek, and the golf course staff has established a 30-acre area along it that is only mowed annually.

Another principle is to preserve existing wooded areas by designing around them.

The 450-acre golf course at Fort Eustis on the James River in Virginia at the southern end of the Chesapeake Bay watershed, has been kept 40 percent wooded. No-mow zones have been increased to 50 acres over the past 10 years. In particular, no-mow buffer areas around two lakes on the course have discouraged geese and allowed the frog, snake and turtle populations to rebound. A 20-acre lake on the course was stocked with fingerling catfish in 1990 and is now regularly used for Boy Scout fishing tournaments. Fort Eustis' golf course conservation program was formally begun in 1993 as a response to budget and manpower

constraints. By working with natural ecosystems, a smaller grounds crew can maintain the golf course using less water, pesticides and herbicides.

According to the Fort Eustis course superintendent, Terry Sanders, "At first we were concerned that the golfers might complain about play being slowed down and balls being lost. Instead, golfers say that they like the feeling of solitude they get from being surrounded by trees on every fairway." He has also worked with his colleagues in the installation's Conservation Branch and local Boy Scouts to put up owl, bluebird, swallow and duck boxes. He augments mosquito control with bats living in bat houses that the Conservation Branch also built. In 2001, the course received the TRADOC award for small installations in the natural resources category and is in contention for the Secretary of the Army's Award.

At least one Army golf course is serving as a demonstration project for the very latest conservation and pollution prevention innovations. Lakeside Golf Course at Fort Benning, Georgia, is currently initiating a golf course-wide habitat naturalization plan. Funded by a Department of Defense Legacy Grant, the Center for Resource ►



# 2002 DoD Recycling Workshop

by William F. Eng

Attention, Solid Waste, Recycling, and Environmental Managers and others interested in attending the Department of Defense Solid Waste/Recycling Workshop and SWANA WASTECON 2002 in Long Beach, California, from 28-31 October 2002.

The DOD Solid Waste/Recycling Workshop and WASTECON convention is the official annual training meeting for Defense recyclers and others interested in solid waste and recycling. This year the Navy is the designated host for the DOD workshop.

The latest DoD Information for the workshop will be available at <http://www.navyrecycling.com/workshop>

An electronic brochure of the WASTECON program with DOD workshop information can be downloaded at <http://www.swana.org/default.asp>. Previous SWANA / DOD workshop attendees will be mailed a brochure.

You must use the DOD registration form on page 22 in order to receive the special DoD registration rate of \$295. This is a savings of \$100 off SWANA-member rate and \$250 off the non-member rate. The hotel per diem rate for Long Beach is \$99. Hotel information is also provided.

To save time and receive immediate confirmation of your registration, you are strongly advised to register on-line and make your hotel reservations early on the SWANA homepage. Be sure you use the DOD SWANA Membership number **31362DOD** on the DOD registration form to receive the \$295 special rate.

New for this year is a bus tour of the recycling centers at Naval Station San Diego and Marine Corps Base Camp Pendleton on Monday, October 28th. The cost is \$25 dollars for the bus tour, which you can add to your DoD Recycling Workshop and SWANA



William F. Eng

WASTECON registration fee. Seats on the bus are limited, so please register early.

Hope to see you at the DOD Workshop and WASTECON in October!

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William F. Eng is an engineer in the Facilities Policy Division, ACSIM. **PWD**

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Management, one of the organizers of the Golf and the Environment Initiative, is developing a model planning process at the golf course. As a demonstration project for implementing the consensus guidelines developed by the G&EI conference participants, new techniques for maximizing the use of native vegetation are being combined with methods for minimizing inputs of water, energy, pesticides and fertilizers.

The plan was developed on the basis of wildlife surveys and planting schemes adapted to the existing natural features of the course. The center also developed an irrigation regime, blueprints for nesting bird, bat, bee and butterfly boxes, a watershed management plan, a pollution prevention plan, a 14-acre no-mow zone, and interpretive signs that explain the various aspects of the plan to golfers as they use the course.

Finally, the center is developing a video training guide for grounds personnel to maintain each component of the plan. An advisory committee will oversee the continuing implementation of this highly interdisciplinary plan. It consists of golf course maintenance personnel, installation conservation staff and public affairs office members, USGA Green Section staff members, University of Georgia horticulturalists, and Georgia Extension Service agents.

Another DoD Legacy Grant, if approved, will enable the Center for Resource Management to translate the work at Lakeside Golf Course into a guidebook for other military golf course superintendents. The guidebook will function as a practical "how-to" manual and a workbook, the completion of which will mirror the process undertaken at Fort Benning's Lakeside Golf Course. The center plans to teach classes to golf course maintenance personnel using the guidebook, and have completion of the workbook accepted as

continuing education credits for the USGA's Certified Golf Course Superintendent program.

*More information on making golf courses more environmentally friendly is available from the USGA, Audubon International and the American Society of Golf Course Architects. All three organizations have mounted outreach efforts that include workshops for golf course developers, superintendents and consultants. This information is available on their web sites;*

*<http://www.usga.org/green/>, <http://golfdesign.org> and [www.audubonintl.org](http://www.audubonintl.org). Information on integrated pest management and pollution prevention can also be found on the USAEC's web site, <http://aec.army.mil>, and information on the Center for Resource Management's projects is available at [www.crm.org](http://www.crm.org).*

Brian Feeney works for Horne Engineering in Maryland. **PWD**



## Environmental Quality Program focuses Army's environmental R&D efforts

by Kurt Preston

The U.S. Army works hard to develop a science and technology-based program focused on safely reducing environmental risk and the cost of complying with environmental laws and regulations while improving the overall effectiveness of environmental stewardship. Designed to support Army wide stewardship of its lands and facilities, this program focuses on the transfer of technological solutions to Army installations and the industrial community.

The U.S. Army Environmental Quality Technology (EQT) program is an element of the Army's RDT&E program. It provides new or innovative methods, equipment, materials or protocols to reduce the total cost of Army operations and/or allow training operations to continue with minimum adverse impact on the environment.

The Army's EQT management process focuses the Army's environmental research and development efforts. Its objective is to achieve, through development and exploitation of technology, environmentally compatible installations and systems without compromising readiness or training. Its mission

is to provide guidance and direction to the Army's environmental community, focusing on science, technology and demonstration and validation work to satisfy user requirements.

It accomplishes this process in two steps. First, Technology Teams identify, prioritize and justify technological solutions to existing Army high priority environmental requirements. Second, based on Department of the Army guidance, it seeks funding through the Army budget process. This process produces an Environmental Quality Technology (EQT) Program.

Further objectives of the EQT program are to:

- Focus efforts on high-priority user requirements,
- Implement technology development when technology is not commercially available,
- Provide an adequate science and engineering base for the future, and
- Focus efforts of EQT teams to support

the army's life-cycle technology implementation process.

The EQT management oversight process consists of the Environmental Technology Technical Council (ETTC), (a program management council); the Environmental Technology Integrated Process Team (ETIPT), (a working group supporting the ETTC; and Technology Teams. They represent each of the Army's environmental "pillars" (compliance, conservation, pollution prevention, and restoration).

The Technology Teams (TTs) consist of members from the research and development community and the eventual users of new technology. It is through the MACOM membership that installations raise their technology needs and maintain visibility of new tools developed for installation use.

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*Kurt Preston, is a member of the ACSIM's Environmental Programs Directorate. **PWD***

## Redstone develops an environmentally friendly fire training facility

by Michael J. Wassell

Several years ago, a large diesel spill occurred at the Redstone Arsenal fire training facility when a valve failed after days of heavy rain. The diesel floating on the rainwater breached the walls, and a large remediation of soil and asphalt contaminated with petroleum was required to clean up the site.

At this point, the Directorate of Environmental Management staff began investigating ways to make the fire training facility environmentally sound, while meeting the operational training requirements of the Redstone Fire Department.

Originally, the fire training facility consisted of a concrete curb lined with fire-brick around a pit. The pit had a sand bot-

tom with a liner underneath it to prevent the spread of petroleum contamination.

At the time of construction, it was a state of the art training facility. Operationally it worked well; however, when firefighters conducted live fire training, some of the diesel and ignited fuel would splash over the curb causing petroleum contamination of the surrounding soil. ➤



*The pit is filled to approximately 4 or 5 inches from the top with water; then diesel fuel is floated on the water.*



*Firefighters light the diesel.*

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Rain also caused problems. After a heavy rain, the pit would fill with rainwater and the residual petroleum, which was always present in the sand bottom, would leach out of the sand and float on the rainwater. Since it is illegal to discharge a petroleum water mixture to the environment, the Installation Services Support Contractor was required to remove the diesel water mixture with a pumper truck and take it to the central oil water separator for processing.

In addition, with temperatures reaching in excess of 2000 degrees Fahrenheit during the live fire training exercises, the concrete would crack and spall. This naturally reduced the life of the training facility and increased the likelihood of a petroleum discharge to the environment.

When The Environmental Office and Fire Department staff first started looking at replacement fire training facilities that were environmentally friendly, there were no designs that met operational needs. Consideration was given to replacing the original pit and adding a system of steel drains flowing to a steel oil water separator. Steel was used so the system would not fail under the high temperatures of the incoming liquids and would be flame proof to diesel and ignited

fuel that occurred while the fire fighters conducted live fire training. The apron was designed to direct the overflow of the diesel and ignited fuel to the oil water separator were investigated. A company called Plibrico manufactured refractory concrete suitable for the project.

Plicast-27-KK was the refractory grade concrete product chosen for the fire fighting training facility. The "KK" stands for kwik kure (quick cure) concrete. The quick curing is accomplished by adding fibers to the concrete, which act as capillary tubes for the water trapped in the concrete. The fibers provide a pathway for the water to escape quickly when the concrete is heated.

The "27" is a reference to the operational temperature of the concrete, which is stable up to 2700 degrees Fahrenheit. The concrete also contains stainless steel needles, which are stable at high temperatures, to increase the structural strength of the concrete.

The new fire training facility now has a curb and an apron made of the Plibrico Plicast-27-KK refractory concrete. The pit is 80 feet in diameter and the apron is 14 feet wide. A liner was placed under the area to contain any petroleum leakage that may occur through the bottom of the pit. The pit floor is composed of a one foot thick mixture of 75% sand and 25% concrete. The mixture of sand and concrete works very well as the pit floor. It has the consistency of very soft sandstone and it is pliable enough to maintain a relatively smooth pit floor. In other words, it does not crack or spall due to thermal effects. Nevertheless, it is firm enough not to run out through the oil water separator drain.

Now, when it rains, due to the new drainage system, the diesel water mixture is sent through the oil water separator so there is no need for the contractor to pump out the pit. In addition, when the firefighters complete their live fire training exercise, any excess diesel water mixture is drained to the oil water separator, further reducing operational requirements and environmental risks.

This project was done in partnership with the Redstone Arsenal Fire Department to ensure we constructed a state-of-the-art facility that was both environmentally and operationally friendly. This facility is used not only by the Redstone Arsenal firefighters, but the Huntsville Airport Fire Department and fire departments from as far away as Nashville and Birmingham.

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*Michael J. Wassell leads the Installation Compliance Team, Directorate of Environmental Management, Redstone Arsenal. PWD*



## Resumix centralization transition

Good news! The Army is centralizing its automated referral system

The Army is consolidating all the resumes maintained by the CPOCs listed below into one central database. This consolidation will happen in stages. Please read the information below to find out what this means to you as an applicant:

- One resume will be on file for all centralized regions. There is no need to submit a new resume if you have one on file.
- Resumes submitted through the Army Civilian Resume Builder (<http://www.cpol.army.mil> click on Employment, then Army's Resume

Builder) will automatically flow into the centralized referral database. This is the fastest way to get a resume into the centralized referral database. If you are applying through the Army Civilian Resume Builder, you will continue to select the CPOCs as you do now to send your resume. The system will automatically send the resume to the CPOC you identified or to the centralized referral database as appropriate.

- Applicants will submit a new resume after they have accepted a permanent position. This does not apply to temporary promotions or temporary reassignments.

- Self-Nominations through the Vacancy Announcement Board (<http://www.cpol.army.mil> click on Employment, then Army's Vacancy Announcements) will be posted automatically to the centralized referral database with on line confirmation.
- ANSWER (<http://www.cpol.army.mil> click on Employment, then ANSWER) will be the method for applicant notification. It is the best way to review your most recent resume on file.

Before submitting a resume or self-nomination, use the table below. This table will assist you in determining where to view the status of your resume and self-nomination. Letters will no longer be issued.

If you applied to:	If the Vacancy Announcement you applied for Closes	Resume Databas	Notifiacation System to Review	ROAR, SOARS & ANSWERS will not be available: Access ROAR/SOARS/ANSWERS through: <a href="http://www.cpol.army.mil">http://www.cpol.army.mil</a>
Northeast CPOC	On or Before Jul 10	Local CPOC	ROAR	5:00 p.m. Jul 11 - 9:00 a.m. Jul 15 Eastern Time
	On or After Jul 11	Centralized	ANSWERS	
Northwest CPOC	On or Before Jul 24	Local CPOC	ROAR/SOARS	5:00 p.m. Jul 25 - 9:00 a.m. Jul 29 Eastern Time
	On or After Jul 25	Centralized	ANSWERS	
South Central CPOC	On or Before Aug 7	Local CPOC	ROAR	5:00 p.m. Jul 8 - 9:00 a.m. Jul 12 Eastern Time
	On or After Aug 8	Centralized	ANSWERS	
Northcentral CPOC	On or Before Aug 14	Local CPOC	ROAR	5:00 p.m. Jul 15 - 9:00 a.m. Jul 19 Eastern Time
	On or After Aug 15	Centralized	ANSWERS	

- The Centralized Resumix deployment schedule follows.

Northeast CPOC Jul 11-15

Southwest CPOC Jul 25-29

South Central CPOC Aug 8-12

North Central CPOC Aug 15-19

West CPOC Not scheduled

## Environmental training without leaving your desk

by Kurt Preston

Let's say that you are an installation environmental coordinator or you are a summer intern working in the environmental staff, or you are a Corps of Engineers project manager and want to "get up to speed" on the latest broadly accepted

restoration technology. Let's say your project involves small arms ranges, chlorinated solvents, or constructed wetlands. And, finally, let's say training dollars are tight or frankly you just do not have time to travel.

Guess what – the Interstate Technology Regulatory Council (ITRC), which is sponsored by numerous federal agencies including The Army, provides high quality internet-based training to Army employees, their contractors, and others. If you work on, for,



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or with an installation, it is free. ITRC's nationwide training courses are unique forums for the exchange of technical and regulatory information and they are offered in conjunction with the EPA's Technology Innovation Office, so it is worthwhile, high-quality information.

ITRC hosts training courses via the Internet to reach a geographically dispersed audience such as ours. The sessions last two hours and cover information about ITRC-developed documents. Individual course descriptions and course dates are available on the Internet at [www.itrcweb.org](http://www.itrcweb.org), but here is a taste of the listings:

**Small Arms Firing Range - Characterization and Remediation—**

Introduces the participants to the various physical (including hydraulic), chemical, and biochemical mechanisms available to treat or stabilize SAFRs after some unique characterization challenges are overcome. This training is based on the ITRC document entitled *Technical and Regulatory Guidance Document for Small Arms Firing Range Remediation Technologies*.

**Constructed Treatment Wetlands—**Describes physical, chemical and biological mechanisms operating in wetlands treatment systems and the contaminants they apply to, site characteristics which make a site suitable to treatment in this fashion, and the regulatory issues affecting this type of remediation system. The training is based on an ITRC document entitled *Technical and Regulatory Guidance Document for Constructed Treatment Wetlands*.

**Diffusion Samplers—**Passive diffusion bag (PDB) samplers are a simple and inexpensive way to sample groundwater monitoring wells for a variety of volatile organic compounds. The ITRC Internet training for this technology will discuss the technical and regulatory considerations associated with deployment of diffusion samplers, and summarize major points of the recently issued USGS document *User's Guide for Polyethylene-Based Passive Diffusion Bag Samplers to Obtain Volatile Organic Compound Concentrations in Wells* (DSP-

1), which was developed in cooperation with the ITRC Diffusion Sampler Work Group.

**Enhanced ISB of Chlorinated Solvents—**Designed to introduce state regulators, environmental consultants, site owners and community stakeholders to the document created by the ITRC's In Situ Bioremediation Technical Team and the Remediation Technologies Development Forum (RTDF) Bioremediation Consortium titled *Technical and Regulatory Requirements for Enhanced In Situ Bioremediation of Chlorinated Solvents in Groundwater* (ISB-6).

**In Situ Chemical Oxidation—**Based upon *ITRC Technical and Regulatory Guidance for Using In-Situ Chemical Oxidation to Remediate Contaminated Soil and Groundwater* (ISCO-1), this course provides technical and regulatory information to help you understand, evaluate and make informed decisions on ISCO proposals. Included is a description of the various chemical oxidants, regulatory considerations, stakeholder concerns, case studies, and technical references.

**Historical Case Analysis of CVOC—**Describes the findings and conclusions from a study of nationwide chlorinated volatile organic compound (CVOC) plumes. It uses a statistical approach and data from multiple sites to evaluate hydrogeologic, biogeochemical, and physiochemical factors affecting the extent and growth behavior of CVOC plumes in groundwater.

**Natural Attenuation - Natural Attenuation of Chlorinated Solvents in Ground Water: Principles and Practices—**Focuses on the basic information one needs to determine and document the conditions necessary for natural processes to be an effective part of remediating chlorinated solvents in ground water. It provides a framework, that is, how to think about natural attenuation based on science. The information contained in this manual and presentation is based on research activities of the RTDF and from experience and knowledge of the participating members.

**Phytotechnologies—**Provides familiarization with the *Phytoremediation Decision*

*Tree and the recently released Phytotechnologies Technical and Regulatory Guidance* (PHYTO-2). It provides technical and regulatory information to help you understand, evaluate and make informed decisions on phytotechnology-application and deployment. It includes a description of the various sciences and engineering practices phytotechnologies require, regulatory considerations and policy issues, stakeholder concerns, case studies and technical references.

**PRBs for Chlorinated Solvents—**Focuses on the basic needs to determine and document the conditions necessary to effectively apply a permeable reactive barrier to a contaminated zone to be an effective part of remediating chlorinated solvents, radionuclides and other inorganic compounds in groundwater.

**Systematic Approach to In Situ Bioremediation—**Presents a decision tree for reviewing, planning, evaluating and approving in situ bioremediation (ISB) systems in the saturated subsurface. It defines site parameters and appropriate ranges of criteria necessary for characterization, testing, design and monitoring of ISB technologies. Contaminants and breakdown products differ; however, many characteristics of a site used to determine the efficacy of ISB are similar.

After registering for the course, participants are told how to receive live audio of the training module and how to download briefing materials from the Web. Participants can submit online questions during the presentation. At the end of the presentation, participants are guided to links for related reports and other resources available online.

The training is free, high-quality, and you can get it without leaving your seat. This is a no "brainer." Energetic folks might even include course attendance as a bullet on their next performance appraisal.

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**PWD**



# Tips for success—how to do well on interviews

by Ed Shuford

Ever wish there were some better way to prepare for that “important” interview? Here is some information I put together for coaching our folks when applying for higher level jobs, although it works at any level.

1. Answer the question being asked. It's not going to be a one question interview. So, you don't have to tell everything you know in the first answer. Long rambling responses will turn the interviewer(s) off.
2. Don't give yes or no type answers. You don't want to ramble, but, you have to let the interviewer know that you know something about the subject. Address topics that are important to the organization that you are applying to today – e.g., if the Corps: PMBP, Regional Business Centers, Corps Vision; if the new Installation Management Agency (IMA): the regions, the new agencies, impacts on garrisons, etc. But, don't just throw the buzzword around. Use examples from your own experience that relate to these issues.
3. Do some research. Find out about organization you're applying to work with. What is the size of the program? What are pressing problems? What is size of the workforce, etc. Incorporate some of that information as you answer questions.
4. If you mess up an answer, don't panic and let that affect answers to subsequent questions. You'll probably have a chance to make some general comments at the end of the interview. You can go back and fix any problems then.
5. Dress nicely. First impressions do count.
6. Don't be humble. Talk freely about the good things you've been involved with. But, since you probably didn't do all the work by yourself, give credit to others too.

7. Give some examples of your work that relate directly to their needs, i.e., tough decisions on allocation of scarce resources; new technology; downsizing; tight budgets; involvement in the political process. etc. It might also be good to mention some of the folks that you know in the political arena both at the state and national level. This is not to brag, but to show how broad your network is and how that could be of use to the organization later.
8. Have someone do a mock interview with you.

Following are some typical selection criteria and interview questions for some recent selections.

## Selection Criteria:

1. Extensive knowledge and demonstrated experience in design and construction functions.
2. Demonstrated ability to lead a large complex and diverse technical organization.
3. Extensive experience in administration of design-build, architect-engineer, and construction contracts for a wide variety of civil works and military projects.
4. Demonstrated ability to interface effectively with customers, political interests, other agencies, and stakeholders.
5. Experience in strategic planning for large, complex technical organizations.
6. Experience with and commitment to teamwork and regional operations.
7. Experience with and commitment to customer outreach and satisfaction.
8. Demonstrated leadership in providing motivation, training, and staff development.
9. Thorough understanding of human resources programs and procedures.

10. Demonstrated commitment to continuing self-development through training, developmental assignments, professional societies, advanced degree, papers, presentations, etc.
11. Performance appraisals, honorary awards, and other forms of recognition.
12. Experience in working in a project management management business process.
13. Ability to develop and lead multi-disciplined teams to carry out complex programs that cross functional and technical boundaries.
14. Ability to develop, acquire, and allocate resources to effectively accomplish multiple program goals within established constraints.

## Sample Interview Questions:

1. What was your proudest moment and why?
2. How can the (organization) best support the project management business process?
3. Give us your thoughts on corporate leadership as it pertains to this position.
4. What is your second strongest attribute?
5. What personal strengths do you bring to the job? What weaknesses would you have to work on?
6. Give us some examples of how you have used your leadership skills to resolve conflict.
7. Building trust is vital. Give us some examples of how you have done this in your career.
8. Give us an example of a book you have read recently and how it applies to your management style. ➤



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9. What are your views on workforce diversity? Give some examples of how you have supported this concept.
10. Discuss your responsibilities as a leader in the regional business center concept.
11. Please explain what "investing in people" means to you and provide examples of how you have supported this aspect of leadership.
12. Give us your characterization of the district and how you see yourself in its future.
13. What are the duties of your present job or another job that most prepared you for this position?
14. When have you taken an unpopular stand for the good of the Corps? Describe the setting, with whom you dealt, and the outcome.
15. What is the angriest you have been in your career? What did you do about it?
16. What are your career and personal goals? How does this position relate to those goals?
17. What does "one door to the Corps" mean to you?
18. Why do you want this job and if offered would you accept it?
19. Please describe the experience you have in managing professional teams.
20. How do you differentiate between the roles of a technical manager and the project manager?
21. What do you see as the greatest challenges facing the Corps and how would you address them?
22. What would be your top priorities in the first 90 days on the job?
23. Where do you see \_\_\_\_\_ in 5 years, and how will you help attain that picture?
24. How do you measure success?
25. Why is diversity important in today's work environment? Do you have an example of how diversity helped you or your team accomplish an objective?
26. There is concern across the Corps about the loss of technical expertise. How would you address this issue?
27. What is the role of a technical organization in outreach and development of new customers?
28. Describe your ability to bring innovative ideas to your program area.
29. Is there ever a situation in which you would not go along with a corporate decision?
30. Describe how you would help to make the Corps Vision a reality if you are selected for this position.
31. How would your current peers and subordinates describe your leadership style?
32. Honesty, integrity and loyalty are critical attributes of leaders. Please cite an example of how these attributes have been challenged in your career and how you responded.
33. As Chief of Planning, Programs, and Project Management Division, you would be the district lead for customer relations. In your current organization, tell us how you have identified your customers and improved customer focus.
34. Strategic planning is an important part of organizational leadership. Explain what specific actions you have initiated to enhance your organization's strategic position.
35. The DDEPM is the senior civilian position in the District. Please explain what your relationship with the functional chiefs would be.
36. Describe how you have mentored others and acted as a role model.
37. The PMBP is key for accomplishment of the District mission. From your view, what are the most important factors for the success of that process?
38. Explain how you would handle conflict:
  - a. Between two or more subordinates
  - b. Between you and a peer
  - c. Between you and a superior

*Ed Shuford is the Director, Military and Technical Directorate at Southwestern Division. PWD*

## Reflections on FPD and the APA National Conference

by Rik Wiant

I was one of the few Army planners privileged to attend this year's Federal Planning Division (FPD) Workshop and American Planning Association (APA) National Conference in Chicago on 13-17 April 2002.

It was a bit expensive, but no more so than other professional workshops. It was also eight straight days away from home and office, but it was worth every penny and minute. Which is why I have made a point of putting it on my Five-Year Development Plan.

At FPD, I had an opportunity to "think like a terrorist" and place four bombs in a USAREUR kaserne under the guidance of the Black & Veatch team that did last year's vulnerability assessment. This was actually the most fun of a whole series of presentations addressing analysis and planning ►



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for protection from terrorist attack or natural disasters.

There were also many presentations on the use of GIS and other tools for planning. APA always has some "hands-on" sessions oriented toward planning directors and others whose duties don't give them much time to fully appreciate what the tools can do. It's a little bit like taking "drivers ed."

This year I got to use "raster GIS" to decide on the permissible height for a smokestack, based upon both visual and emission pollution, and a quick, efficient method of making "flyable" 3-D models of neighborhoods directly from ArcView files. This was all more orientation than training, so I doubt that I could do any of it today unassisted. But I know that it can be done, without much difficulty or expense, and I will expect to see some of these techniques being used on Army installation plans.

Regional planning is becoming more important to everybody. This means, in addition to satisfying their own constituencies (towns, installations), planners have to become more proficient at working with other groups.

We all recognize that few installations today sit self-contained and isolated. Our major tool to address this in the Army in the Joint Land Use Study (JLUS) program, which we often equate to a one-time fix. It was hard to listen to these sessions without concluding that our installations will be poorly served without competent staff engaged in planning with their neighboring peers. Of course, one of the reasons most jurisdictions support sending their staff to these conferences is to help develop and sustain the peer network that makes agreements possible.

Capital investment planning will also become more important. In a way, we have "enjoyed" decades of easy planning. We didn't have much money and we had World War II wood. What money we did get went into replacing wood. Of course, it wasn't really that simple, since force modernization and, now, Army Transformation, gave us some challenging milestones.

But we haven't been used to thinking about the total life cycle management of all of our facilities - renovation or replacement of buildings 50 years in the future. However, some cities are, and we heard about that. One of the future models for base management is near total divestiture of real property— getting someone else to own and maintain the property for us.

It was a real treat to get to hear Howard Peak, former mayor of San Antonio, Texas, and now head of the Brooks Development Authority, and Dr. Brendan Godfrey, Deputy Director for the innovative Air Force "Brooks City Base," talk about their experiences.

In addition, there were the inspirational moments like listening to Linda Mesaros, former Chief of Staff of the White House Task Force on Waste Prevention, Recycling and Federal Acquisition, talk to FPD on leading the effort to Executive Order 13101 (one of the basic authorities for our Sustainable Design and Development program), and GSA's David Bibb speaking on reforming the Federal Real Property Act (in Congress now). Mesaro's speech is available in our Planning & Real Property web library on the ISD home page (<http://www.hq.usace.army.mil/isd/>).

Which gets us back to the question of what the experience is worth, and how to pay for it. We have some good introductory training in the Army— both the PROSPECT Course, and now, the Installation Management Institute sessions. But with training funds tight, it's easy to say, "We don't need to send anyone to APA and FPD this year— he's had the PROSPECT Course." When this happens, both the plan-

ner and the installation suffer. Investment here is investment in the installation's future.

Now, more than ever, the Army needs a corps of professional master (community) planners who understand the whole realm of issues and choices, who have the skills to plan, and who can bring consensus to the plan. Good as it is, introductory training is only the start. These conferences and workshops are not the only continuing education opportunities, but they are timely and available. And now is the right time to start working on them for FY03.

In 2003, the conference will be in Denver, Colorado. The dates are:

Army Planners Session 26 March

FPD Workshop 27-30 March

APA National Conference 30 March - 2 April

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# ORISE builds bridge from ivory tower to training range

by Neal Snyder

Colorado historian and archaeologist Pam Cowen has conducted a historic archaeological field investigation, started a long term oral history project, organized building inventories and is deeply involved in researching the historic context of Fort Carson, Colorado, through the decades – all since October 2001, when she joined a program designed to bring federal government and academia together.

The Oak Ridge Institute for Science and Education (ORISE) program places students, recent graduates and faculty members in federal laboratories and installations for fellowships or internships of up to three years. The U.S. Army Environmental Center began offering an environmental management portion of this Department of Energy (DoE) program in 1995.

The program fit well with the installations' need for specific projects to be done to meet their environmental requirements, said Paul Thies, director of the USAEC Conservation Division and manager of the Center's participation in ORISE. "We saw that these tasks fit in well with hands on, practical field experience opportunities for recent college graduates," he said.

This program is one of many varieties of science and engineering fellowships and internships throughout the government offered through ORISE.

The USAEC ORISE program is designed specifically to train scientists, engineers and technologists for environmental programs, projects and activities on U.S. Army Installations. Unlike many other ORISE opportunities, this program integrates the participants into the Army environmental mission. "That makes it as effective as any place I've ever seen," said Wayne Stevenson, who oversees ORISE as ORAU director of science and engineering education.

This integration of participants at the beginning of their careers "brings brand-new ideas and state-of-the-art practices into our environmental program," adds Thies.

The Army sends USAEC ORISE participants across the country and overseas. It gives them tasks as varied as banding red cockaded woodpeckers on Fort Stewart, Ga., planting sea grass in the Chesapeake Bay

off Aberdeen Proving Ground, Md., and supporting Armywide environmental compliance assessments.

In exchange, an installation supporting an ORISE participant must designate a mentor for that person and provide him or her the necessary resources. The installation also pays the full cost, including stipend, of the ORISE participant.

Cowen, a former University of Colorado at Colorado Springs faculty member, now works with the staff of the Fort Carson Cultural Resources Management Program. Beyond her research and archaeology, she helps identify, rehabilitate and maintain the installation's historic properties.

When she began her fellowship at Fort Carson, Cowen became the 500th postgraduate participant in the USAEC ORISE program. "This is not only what I'm interested in but I am able to bring my expertise to the program, as well," she said. She learned about the program while working on a University of Colorado project for the installation.

Cowen takes part in the ORISE postgraduate program, which allows people who have recently received academic degrees the ability to participate in projects in their degree area. A student internship program offers high school juniors through graduate students the opportunity to participate in environmental, cultural and technical activities while studying. A third program provides individuals who are currently pursuing, or have received within the past year, a certificate in an appropriate science, technology or engineering field the opportunity for experience in a field closely related to their area of study.

"Our mission is to bring the academic community together with federal installations and laboratories," said Ronald Townsend, president of Oak Ridge Associated Universities, the consortium managing ORISE for DoE. "It's a win for the federal installations, it's a win for the students who have these excellent opportunities and it's a win for the universities because they see these programs as something that enhances what they do on campus."

The program has also served as an effective introduction to the possibility of a career in Army environmental programs.

"Students are like everybody else – they get interested in what they are doing. And many of them start to really like it. You end up with ambassadors across the nation who have been assigned to Army facilities through the intern program," said Stevenson.

Another historian, Susan L. Taylor, now works in the USAEC cultural resources branch thanks to her ORISE fellowship.

The ORISE experience "extended my ideas and boundaries as to what historic preservation was," Taylor said. "It has given me an 'in' into the federal government. I gained a lot of experience I wouldn't have gotten otherwise."

Cowen said she is also interested in a federal career. After her three-year ORISE appointment, "I hope I can stay in a contract or federal position here at Fort Carson, if something comes up, or anywhere across the country," Cowen said.

Working on Fort Carson also introduced Cowen to military society. "I grew up in Colorado Springs ... but I know I did not truly have the proper respect for what the military community can do until my first week on the installation," she said. "I have a new admiration and respect for what military forces do for this country."

Interested installations should identify their requirements and contact the ORISE office at USAEC. Visit <http://aec.army.mil/usaec/support/orise01.html> on the USAEC Web site for more information.

(Editor's Note: Melissa Plummer of USAEC contributed to this article.)

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